Southland's Social Context

An Assessment of the Region

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Executive Summary

The information presented in this report is used to conduct a social assessment of the Southland region. To begin, the report first looks at aspects of Southland's history to illustrate key movements, shocks and trends that have impacted society over the last 70 years. This reflection emphasises how history shapes the understood norms and societal expectations in the region today, contextualising social indicators that are currently available. Various social indicators are then presented to show how Southland's society is currently positioned, both in comparison to national New Zealand social indicators and in relation to change over time. Topics range from traditional demographic and socio-economic measures, to those that explore perceptions on issues related to mental and spiritual state, and of the perceived value of lifestyle.

Environment Southland is undertaking a community-inclusive planning process to deliver limit-setting obligations for land and water management, as directed by the National Policy Statement for Freshwater Management (NPSFM). This is delivered in part through the People, Water and Land (PWL) programme. The programme aims to guide the necessary transformational changes that are required to reduce the adverse effects that anthropogenic activities are having on the environment. As part of the information package that supports the PWL programme and plan change process, there is a need to understand the current state of environmental, economic, social and cultural drivers in the Southland region. The Regional Forum, a community-based group that forms a key component of the PWL programme, wish to understand the current social profile of the region as part of its considerations when providing advice to council and the Te Ao Marama Inc. (TAMI) Board on how freshwater outcomes should be achieved. This assessment is an element to understanding and contextualising potential policy implications for land and water changes, when reviewed in conjunction with work delivered in biophysical, economic and cultural spaces.

Purpose
To support the Regional Forum by providing current social context of the Southland region, the objective of this report is to therefore provide:

1. an illustration of key historical social impacts, shocks and trends in Southland over the last 70-year time period;
2. a range of relevant social indicators that describe the current social profile of the region.

It is hoped that this social assessment can also be used and adapted in future to support relevant council projects and planning requirements.

A companion report exploring possible well-being frameworks for regional monitoring and reporting of social data is currently in preparation.

Approach
This report uses quantitative and qualitative secondary data sources to support its social assessment. A desktop study was undertaken to identify relevant social statistics and literature.

Qualitative data are used to support the historical summary within this report. This includes published books and journal articles, to relevant national and local media articles. Quantitative social data are used to present a range of social indicators. Data are presented in temporal and spatial formats, such as tables, graphs and maps. Multiple data sources are used when possible to provide robust evidence of social trends.

Findings

The rise and decline of natural resource use has impacted the development of Southland region, evident in social statistics today. Early Māori history in Southland shows the value of *mahinga kai*, where seasonal harvesting of resources was influential in the location of settlements, key trading routes and early overland *ara tawhito*. Upon European arrival, land sales and the development of land were driven by interests in primary industries. The development of these industries over time encouraged townships growth and key transport networks. Section 3 has emphasised the growth and subsequent decline of specific primary industries in the region over the last 70 years. Coal and timber decline in Western Southland, for example, led to social change and a general decline of small townships in the area. Patterns of changing government legislation, of strikes and general upheaval in industries like meat processing, and the impacts that movements in conservation and environmentalism have had, and are having on primary industries and large-scale industry development, show how primary industries have been impacted over the years.

The value of agriculture to the Southland region is specifically evident. Section 3 discusses the changing agricultural patterns following the arrival of Europeans. In the more recent past, discussion shows the general decline of sheep and beef in the region from the 1980s onwards, and the expansion of dairy across rural Southland. Decline in sheep numbers have been attributed to political deregulation of the agricultural industry, where the removal of subsidies and various free market interventions led to instances of hardship and social challenges for many farmers. In general, the direct and indirect impacts of neoliberal reforms in the 1980s are shown to have caused wide-spread social impacts across Southland.

Some noteworthy trends and patterns can be highlighted across current social indicators. This assessment has shown how certain townships today remain affected by historical declines in primary based industries. For example, correlations between current social statistics for Ohai reveal issues of trending population decline, lower individual incomes, higher rates of unemployment, lower qualification rates and a decline in household numbers, in comparison to trends in other townships and areas of Southland.

Comparisons between Southland social statistics and national New Zealand statistics illustrate the region's current social profile. Southland is shown to have an ageing population, where in particular the percentage of younger adults in the region is lower than it is nationally. Other points of note include the high percentage of labouring-type jobs that Southlanders have in comparison to national statistics, as well as a higher percentage of the Southland population having no formal qualifications than national percentages.

Summary

When looking at opportunities for future research in relation to social data collection, there are specific indicators that would be of increased value if strengthened. In particular, indicators that explore perceived overall well-being, familial well-being, life satisfaction and perceptions of worthiness in livelihood and lifestyle. Information on social connectivity and relations, of trust in institutions and broader societal services, and an understanding of neighbourhoods and their perceived value is currently unreliable for the Southland region. Further efforts to understand these areas of society has potential to provide Environment Southland with a more nuanced understanding of the wider Southland community, supporting its delivery of policy and assessing immediate need and impact.

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List of Abbreviations

ASE – Absolute Sampling Error

CAU – Census Area Unit

CI – Confidence Interval

Comalco – Consolidation Zinc Co.

DHBs – District Health Boards

ECNZ – Electricity Corporation of New Zealand

FFNZ – Federated Farmers New Zealand

FMU – Freshwater Management Unit

GDP – Gross Domestic Product

MELAA – Middle Eastern/Latin/American/African

NGOs – Non-Government Organisations

NPSFM – National Policy Statement for Freshwater Management

NZAS – New Zealand's Aluminium Smelter

NZCC – New Zealand Construction Company

NZDep - Index for Socioeconomic Deprivation

NZED – New Zealand Electricity Department

PWL – People, Water and Land Programme

QMS – Quota Management System

RMA – Resource Management Act

SA – Statistical Area

SA1 – Statistical Area One

SA2 – Statistical Area Two

SMP – Supplementary Minimum Price System

SOE – State-Owned Enterprises

Stats NZ – Statistics New Zealand

TAMI – Te Ao Marama Inc.

VET – Vocational Education and Training

1 Introduction

1.1 Background

Environment Southland has commenced a community-inclusive planning process to deliver limit-setting obligations for land and water management, as directed by the National Policy Statement for Freshwater Management (NPSFM). This is delivered in part through the People, Water and Land (PWL) programme. In partnership with Te Ao Marama Inc. (TAMI), the PWL programme aims to guide the necessary transformational changes that are required to reduce the adverse effects that anthropogenic activities are having on the environment.

As part of the information package that supports the PWL programme and plan change process, there is a need to understand the current state of environmental, economic, social and cultural drivers in the Southland region. The Regional Forum, a community-based group that forms a key component of the PWL programme, wish to understand the social profile of the region as part of its considerations when providing advice to council and the TAMI Board on how freshwater outcomes should be achieved. The information presented in this report is used to provide a social assessment of the Southland region. This assessment is an integral part of understanding and contextualising potential policy implications for land and water changes, when reviewed in conjunction with the subsequent work delivered in biophysical, economic and cultural spaces.

1.2 Objectives of the report

To support the Regional Forum by providing the current social context of the Southland region, the objective of this report is to therefore provide:

1. an illustration of key historical social impacts, shocks and trends in Southland over the last 70-year time period;
2. a range of relevant social indicators that describe the current social profile of the region.

It is hoped that this social assessment can also be used and adapted in future to support relevant council projects and planning requirements.

A companion report exploring possible well-being frameworks for regional monitoring and reporting of social data is currently in preparation.

1.3 Report structure

This report first explains the methods used to deliver the report, highlighting the various data sources that are presented to describe historical events and the current social profile of the Southland region. Following the methods section is an historical section. This section briefly explains elements of Southland's Māori and European settlement, before focussing on eight major historical events that led to social change within the Southland region. Reflecting on these eight events provides context to the assessment of the social data that follows, as shocks and trends that directly resulted from these events have both positively and negatively impacted how Southland's society is shaped today.

The current social profile of Southland is then discussed, using a range of available social indicators to show key societal trends. Indicators are grouped under the relevant headings of population, population diversity, economy, employment, education, schooling, households, social deprivation, social issues, trust and social capital, and health and well-being. Discussion provides comparisons between the Southland region and of New Zealand, to show how the region reflects against national statistics. Where appropriate, comparisons are made between social indicators

and relevant aspects of the historical discussion in the previous section, as well as between other social indicators, to show how certain impacts can effect different aspects of society.

2 Methods

2.1 Approach

This report uses quantitative and qualitative secondary data sources to support the social assessment. To deliver this report, a desktop study was undertaken to identify relevant social statistics and literature. Qualitative information is sourced from published and 'grey' literature. Grey literature covers documents, reports and articles produced outside of academic publishing. Whilst extremely useful and valid, discretion should be applied with grey literature as there can be substantial variability in its quality, accessibility and 'quality control', depending on the nature of its publication and distribution (Roth, 2010). Qualitative data are used to support the historical summary within this report. It incorporates published books and journal articles, to relevant national and local media articles in order to summarise key historical social trends. Quantitative social data are used to present a range of social indicators. Data are presented in temporal and spatial formats, such as tables, graphs and maps. Multiple data sources are used when possible to provide robust evidence of social trends. The key data sources used in this report are outlined below.

2.2 Statistical data sources

Statistical data in this report varies in its scale and representation, depending on the source of the material. Specifically, differences in spatiality and time among data sources are evident. As no data was specifically generated for this report, it is important to understand the origins and quality of different data sources.

Social metric data for Southland have large spatial variability, where the spatial scale was either determined for a particular purpose for the reporting agency, or based on pre-existing geographical boundaries that demarcate particular or historical interests. For example: territorial boundaries that represent the four council bodies within Southland; or boundaries that mark historical wards which demarcate previous areas of civil representation and administration before council authorities merged (particularly in rural settings); or District Health Board (DHB) boundaries where the entire Southland region and Otago region for the 'Southern' DHB. The spatial considerations for other key social data sets used in the social assessment are described below:

2.2.1 Statistics New Zealand (Stats NZ)

Statistics New Zealand use the following reference areas to help break down Census data:

- **Meshblocks:** Meshblocks are the smallest geographic areas for which Stats NZ collects data. They form the base for most of their data sets. In urban areas, meshblocks can be as small as a city block, whereas in rural areas they are much larger. Most of Stats NZ's Census data is released at the meshblock level.
- **Census Area Units**: Census Area Units (CAU) are loosely equivalent to suburbs in urban areas and rural towns, or parts of larger towns. Otherwise they are larger rural areas. A CAU consists of a group of meshblocks. They are non-administrative areas which are smaller than territorial authorities.
- **Statistical Area 1 Level**: Statistical Areas (SA) are used by Stats NZ to provide specific localised information. The SA1 level provided by Stats NZ is more localised in scale than SA2, made up of one or more meshblocks. These area boundaries have replaced the former CAU boundaries of the New Zealand Standard Areas Classification 1992 (Department of Statistics, 1992), as a part of the Statistical Standard for Geographic Areas 2018 guide (Statistics New Zealand, 2017).

- **Statistical Area 2 Level**: The SA2 level most closely replicates the scale that Census Area Units once did; units that were previously used by Stats NZ to divide New Zealand into localised areas. SA2 provides higher aggregations of population data than can be provided at the SA1 level, reflecting communities that interact together socially and economically. They therefore tend to capture a community of interest, for example a shared road network, community facility, historical and social link, or socio-economic similarity (Statistics New Zealand, 2017). SA2s are built from SA1s and either define or aggregate to define urban rural areas, territorial authorities, and regional councils. Populations in city council areas generally sit between 2000-4000 residents; between 1000-3000 residents in district council areas; and fewer than 1000 in rural areas (Statistics New Zealand, 2020).

Stats NZ also provide information from their General Social Survey. This survey is run bi-annually, with 2018 being the latest available data. This survey collects subjective social data. For example, the survey asks respondents to reflect on their perceptions toward predominantly social issues. It should be noted that the General Social Survey has a smaller number of respondents than the Census. Correspondingly, this means the ability to extract and/or use the General Social Survey data for the Southland region is limited by a small sample size and related reliability issues. All presented General Social Survey data within this report also has an Absolute Sampling Error (ASE) percentage to highlight this small sample size. Where appropriate, the report acknowledges that there are representation issues because the data is sourced from a subset of the population and not the whole population of the region. Table 1 in Section 4 identifies data sets that are considered to be strong or poor in quality and representation.

Data suppression is also evident within specific Stats NZ data. This is generally related to small sample sizes and privacy issues, where small populations may enable individuals to be identified in the data. Data suppression is acknowledged where appropriate.

2.2.2 Environment Southland

Environment Southland has developed specific geographical boundaries to define Freshwater Management Units (FMUs), for the purposes freshwater management policy requirements. These boundaries are a requirement of the NPSFM (2020), which stipulates that regional councils and unitary authorities are to identify FMUs for planning and delivering freshwater objectives (Wilson *et al.*, 2019). Although the NPSFM does not mandate a particular method to establish FMUs, it provides the following definition as a guide:

> *A water body, multiple water bodies or any part of a water body determined by the regional council as the appropriate spatial scale for setting freshwater objectives and limits for freshwater accounting and management purposes. (New Zealand Government, 2020)*

Southland is divided into five FMUs that are broadly centred around its main arterial water bodies (Moran *et al.*, 2018), including Fiordland and the Offshore Islands, Waiau, Aparima, Ōreti and Matāura[1]. They align closer with hydrological surface water catchments than with political and administrative boundaries, although they were a part of the consideration process (Robertson, 2018). Thus, there is often a poor alignment between the FMUs and the social data sources for this assessment. For this reason, the social assessment does not always discuss or refer specifically to FMU boundaries.

[1] The Environment Court, in its December 2019 interim decision on the proposed Southland Water and Land Plan, signalled the need for a freshwater management unit specific to the Waituna catchment, in addition to the five that are already determined. (Bartlett *et al.*, 2020).

The differences in spatial boundaries for data sources meant it was not possible to portray data in a consistent method. Figure 1 shows the data boundaries for some key data sources, highlighting the diversity of geographical boundaries used within the region. Data that is collected across various temporalities further adds to this complexity. For example, Census data is collected in five year cycles, while the General Social Survey is collected in two year cycles. This means that not all data sources may relate to the same year or area, posing challenges with comparing statistics between data sources. This report therefore makes best use of what is available, presenting the most reliable and statistically representative data where possible. Boundaries and time periods will vary.

Figure 1: The various political and statistical boundaries presented across the Southland region (Source: Environment Southland, 2021)

3 Southland's Historical Context

The first phase in this social assessment is to understand the historical context of the region. This context is important because Southland's current social profile is very much shaped by previous events that have progressed society to what it is now. Inherent to this progression are events and trends that inform the conscious reconstruction of everyday knowledge; the notion that things which are learnt can become habitual and taken for granted over time (White and Ellison, 2006). Bourdieu conceptualises this as 'history turned into nature', the unconscious norms and societal expectations that become ingrained and intuitive to individuals over time in particular socio-cultural contexts (Bourdieu, 1977; White and Ellison, 2006).

Exploring historical shifts, trends and shocks can reveal insight into current societal structures and functions that either formally and/or informally govern communities today. They can also point to how individuals understand their life and their well-being. This section will briefly look at the historical settlement of the Southland region, before discussing some of the more prominent societal impacts that have occurred in the more recent past. It is not within the scope of this report to provide an all-encompassing historical reflection of the region. Rather, the more recent key events that have influenced today's society have been focused upon to illustrate the connection between past events and present available social data. An historical reflection therefore provides context for later discussion on the social perceptions and behaviours that characterise the region today. Where appropriate, this section will identify more detailed historical accounts that can be accessed to gain further information.

3.1 Settlement

Records of the first Māori arrival in Te Wai Pounamu (South Island) to go back almost 1000 years ago, following migrations that originated from Eastern Polynesia (Moran *et al.*, 2018). Throughout this early period, the two principal tribes based in the South Island were Waitaha and Ngāti Māmoe (Garven *et al.*, 1997). Evidence of settlement in the Southland region has been found through excavations in places such as Stewart Island, dating to the latter 13th century (Garven *et al.*, 1997), and through the carbon dating of materials at Tiwai Point that identify settlement during the early 16th century (Gray, 2001). Ngāti Māmoe were said to have travelled south from the East Coast of the North Island, where Waitaha are believed to have settled directly from their origins in Hawaiki (Garven *et al.*, 1997). Eventual patterns of Ngāi Tahu migration from the North Island, over time, established three major tribal presences in the South Island, shaping the mana whenua of the Southland region.

Limited large formal settlements in the Southland region reveal the hunter gatherer lifestyle that Southern Māori lived. This was built on the seasonal patterns of *mahinga kai*, a complex system based on the seasonal harvests of key resources right across the South Island, which formed the Māori calendar (Ashwell, 2002; Garven *et al.*, 1997). Moran *et al.* (2018) emphasise the connection between Māori settlement and water. Southern coastlines were major trading routes because of the difficulty of overland travel, and settlements on prominent headlands in Southland offered favourable defensive qualities (Moran *et al.*, 2018). Formal and seasonal settlements (see Moran *et al.*, 2018 for specific examples such as Pahi, Ōue and Ōraka) were established near lakes, rivers, streams, wetlands and estuaries at key food gathering sites. Ashwell (2002) details ten different seasons in the Māori calendar, in comparison to the Gregorian calendar, that show the seasonal patterns of *mahinga kai*:

- September to October: Kanakana harvest at the Matāura River
- November: Eel harvest at Waimea Plains
- December: Coastal movements

- January to February: Poha and Kelp kete making in preparation for Muttonbird season
- January to February: Makaa (Barracouta) season
- March: 'Titi hao kai titi' (Muttonbird) harvest preparation and travel to islands
- April to May: Bird harvest
- June: Movement back from the islands to the mainland
- July: Movement to forests to harvest Kereru, Kaka and Tui
- August: Period of leisure and consuming gathered foods, in preparation for next season.

Movement throughout the lower South Island was also undertaken for key resources such as pounamu and totara. There is evidence of extensive *ara tawhito* (traditional routes) that linked coastal areas to key inland sites right across Southland and the South Island. Beattie (1962) details the discovery of greenstone toki (adzes) in Gore, along *ara tawhito* that connected key settlements in the south to sites in Central Otago, following the Waikaka Stream. The connection between Southland townships, water and *ara tawhito* are noted by Moran *et al.* (2018: 61), as being "no accident", as early European explorers relied on Ngāi Tahu guides to travel inland; trails that often followed river valleys. While this nomadic lifestyle was most common, historical accounts speak of two key settlements in the Southland region with particularly interesting histories, Tūtūrau and Ruapuke Island.

Tūtūrau, located within three kilometres of modern Matāura, was an important Ngāi Tahu *kaika* (small village) that grew over time to become an important base from which to harvest kanakana locally, and as a hub from which to travel inland to other important *mahinga kai* sites. The infamy of Tūtūrau, however, lies in what is described as "the scene of one of the most important battles in the whole history of Murihiku" (Hall-Jones, 1991: 20). 1837 marked the date where Ngāi Tahu chief Tūhawaiki, having been tipped off about the sacking of Tūtūrau by Ngāti Tama chief Te Pūoho, advanced a *taua* (war party) from his base on Ruapuke Island to retake Tūtūrau and shoot Te Pūoho dead. Te Pūoho had moved south in the hopes of "skinning the Ngai Tahu eel from tail to head" (Maclean and Phillips, 1990: 17). He had settled in the upper South Island as part of his tribal diaspora to claim more land, and had accompanied infamous Ngāti Toa chief Te Rauparaha as a member of the larger North Island raids and land grabs on Ngāi Tahu settlements throughout the 1820s and 1830s, in places such as Kaiapohia (Maclean and Phillips, 1990). Tūhawaiki then returned down the Matāura River with his prisoners to Ruapuke Island, where the head of the vanquished Te Pūoho was paraded on a stake (Hall-Jones, 1991). The importance of the battle and of Tūtūrau is marked by a memorial obelisk that stands today.

Tūhawaiki and his uncle, Te Whakataupuka, had established a central headquarters on Ruapuke Island. Over time, their influence in Murihiku and among the power balances of Ngāi Tahu iwi increased throughout the 1820s. Te Whakataupuka had succeeded Tūpai as the leading chief in Murihiku, following the deaths of other important Murihiku chiefs (Anderson, 1990). Anderson (1990) attributes the stronger Ngāi Tahu influence that Tūhawaiki gained to the political inheritance from his uncle, his reputation as a bold military leader, and the extensive raids in northern Ngāi Tahu settlements by Ngāti Toa that led to the southern migration of survivors of Te Rauparaha's raids. The Ruapuke settlement became infamous through Te Tiriti o Waitangi signings, where Sheet 7, The Herald (Bunbury) Sheet was signed on the 9th and 10th of June, 1840 by Tūhawaiki. At the time, "Tūhawaiki's home [on Ruapuke Island] was now a weatherboard house, and he was the acknowledged leader of Ngāi Tahu" (Anderson, 1990: 1).

The 18th and 19th centuries saw the beginning of significant Pākehā and Māori interaction in Southland, following the first European sightings of New Zealand. Abel Tasman first sighted New Zealand in 1642, and this was followed by the mapping of New Zealand by Captain James Cook in 1769. Garven *et al.* (1997) state that the first contact between Māori and Pākehā in Southland was

likely made in 1792 in Dusky Sound, where Pākehā sealers had made camp. Treaty settlement, land sales, wars and the subsequent treatment of Māori by European settlers over the following decades and centuries marked a significant turning point in New Zealand's history; of which legacies of that past can be attributed social, economic, political and environmental challenges today.

3.2 European settlement

Initial contact between Māori and Pākehā, and the eventual settlement of Europeans in Southland following this period are marked by key maritime interests and large land purchases. This led to the establishment of townships, the harvesting of natural resources and the establishment of large farming runs.

As well as first contact with Māori, Dusky Sound was also the location of the first European house, first shipbuilding, first shipwreck and at one stage host to more Europeans than the rest of the entire country (Hall-Jones, 1991). The sealing industry was the major economic pursuit that attracted Europeans to Southland, and by 1810 there were sealing depots established in other Southland coastal areas such as South Cape, Whenua Hou, Port William and Southport (Pegasus) (Garven *et al.*, 1997). Whaling gangs operating across coastal regions in the lower South Island moved further south in the latter 18th and early 19th centuries. Both whaling and sealing were short-lived, however, due to the over-hunting of both species. Flax purchases between Europeans and Māori in 1823 preceded the arrival of James Spencer, who in 1824 purchased land in modern-day Bluff and established a settlement, equipped with a trading station for whaling ships, a fishing station, a whale processing station, and a small cultivation farm that also housed the first herd of cattle in Southland (Hall-Jones, 1991; Gray, 2001). Gray (2001: 11) argues that this settlement "was one of the earliest in New Zealand and believed to be the first to survive to become a town… Bluff is therefore considered to have a longer history than any other town in New Zealand". The settlement of Bluff also saw the sale of land to Europeans. Bluff port is argued to be the only port in New Zealand where all waterfront land was sold before the signing of Te Tiriti o Waitangi, and where proof of such transactions were thoroughly recorded (Gray, 2001). Other small settlements were established in parts of Fiordland, in southern coastal areas such as Riverton (McClintock, 2000), and in parts of Stewart Island in the 1820s and 1830s, driven by key commercial maritime interests.

Socially, as small settlements developed there is evidence that points to the merging of Māori and European societies. By 1834, there was a mixed community of ex-whalers and Māori living at 'the Neck', at the entrance to Paterson Inlet, Stewart Island (Hall-Jones, 1991). Garven *et al.* (1997: 62) note that in the early 19th century, sealers in the region were causing trouble within Māori coastal settlements and *kaika* due to their "hunger for female companionship", leading Honekai, the paramount chief *ama ariki*, decreeing the island of Whenua Hou (Codfish Island) to be set aside solely for Māori women and their Pākehā spouses. Whenua Hou was settled in 1826 and today, "hundreds, maybe thousands of people, descendants from those first settlers, can point with pride to the island as being the land of their origin" (Garven *et al.,* 1997: 62).

The signing of Te Tiriti o Waitangi and the subsequent Murihiku Deed of 1853 (see Te Rūnanga o Ngāi Tahu, 2017), and Rakiura Purchase Deed of 1864 (see Garven *et al.*, 1997), enabled the Crown to purchase the majority of land in Southland (further detail available in Moran *et al.,* 2018). A wave of European migration to the region followed, alongside an extensive effort to survey it. Notable surveyors were John Turnbull Thomson, who began his journey in 1856 (Hall-Jones, 1991), and James McKerrow, who began in 1861 (Fitzgerald, 2000). The appeal of Southland land for European settlers lay in its ability to support large farming runs and resource extraction activities, driving agricultural development throughout the 1850s and 1860s. Emerging runholders created

an urgent need to survey the land and create a registry, because of the scale of the land and the sheer number of runholders establishing runs (Hall-Jones, 1991). Captain John Howell was an early runholder of note, who landed the first sheep in Southland in 1853 and drove them to his land near Riverton (having previously founded Riverton township in 1836) (Hall-Jones, 1991). In Eastern Southland, the first sheep to the Matāura Valley landed in 1854 and were driven up to Glenham from the Matāura River mouth, while the McKellar brothers were the first to import sheep into Bluff harbour and drive them to the Waimea Plains in 1856 (Beattie, 1962: Hall-Jones, 1991). Runs in Western Southland were also extensive, at properties such as Birchwood near Ohai, and to the north, at Manapōuri Station (1857), Te Anau Station and Te Anau Downs (1860) (Guttery, 2015; Taylor *et al.*, 1998; Warren *et al.*, 2000). The farming potential of the region was a major factor that encouraged European settlement across Southland.

The other, and perhaps more significant factor that supported the development of townships across Southland related to resource discovery and extraction. Gold discovery in Otago and Southland is one example. Gold discoveries in Central Otago, but particularly in Wakatipu, and in Southland at Nokomai, Waikaia and to a lesser extent Orepuki, Roundhill, Waimumu and the Hokonui Hills, created a massive population influx into the lower South Island (Beattie, 1962; Hamel, 1989; Hall-Jones, 1991; McClintock, 2000; Gray, 2001). As Bluff was the closest port to Victoria, Australia, it became the main port that overseas prospectors arrived at. An estimated 1800 immigrants arrived in Bluff between 1862 and 1864 (Gray, 2001). The pathways prospectors took to each respective goldfield greatly benefited new township development along the way. Beattie (1962: 26) recalls the "astonishing flow of traffic through the Long Ford", now modern-day Gore, that accelerated community growth following its inception in 1862. Nokomai township was believed to have held approximately 2000 Chinese miners at the height of its gold rush period in the 1870s, supported by an array of amenities (Hamel, 1989). The advancement of other key port centres like Riverton, and inland settlements like Invercargill and Otautau, greatly benefitted from the gold rush and survived over time to support agricultural and other important primary industries (Taylor *et al.*, 1998; McClintock, 2000). Coal discovery in Western Southland in the 1850s was also significant in the development of many Southland settlements. From the 1860s, small private mines around Wairio, Nightcaps and Ohai were the first steps in what was to become a long-term coal extraction operation in the region. Commercial coal extraction development began in Nightcaps in 1882, with production peaking in the 1910s at approximately 65,000 tonnes per annum, employing over one hundred workers (Fitzgerald, 1998). Coal extraction in Ohai survived at a larger scale for longer.

The harvesting of timber was important in the late 19th and early 20th centuries in parts of the Catlins (Hall-Jones, 1991), through lower parts of Fiordland such as Port Craig (Warren *et al.*, 2000), on Stewart Island at Paterson Inlet and Halfmoon Bay (Hall-Jones, 1991), at Roundhill, Colac Bay, Wakapatu, Otautau (Taylor *et al.*, 1998: McClintock, 2000), and areas surrounding Tuatapere (McClintock and Fitzgerald, 1998). Agricultural production in wheat, meat, and wool were also expanded in rural Southland. Additional discussions related to coal and timber can be found in Section 3.3.7. More information on the history of timber production can be found in Moran *et al.* (2018).

Not unique to the region, and only covered with brevity in this report, is the technological advancements in rail, roading, and in electricity that were essential to Southland's growth and development. The development and impact of roading is discussed in detail by Moran *et al.* (2018). Rail construction through the region, linking regional areas to major centres and Southland to other parts of New Zealand, supported the development of settled townships and helped establish others. Towns such as Lumsden, for example, were developed as key junctions for the rural hinterland and grew once the rail was installed (Hamilton, 1952). Riversdale in Eastern Southland

was similar (Beattie, 1962). By 1879, the rail between Dunedin and Invercargill was established. Gore, which had rail links to Invercargill established earlier in 1875, greatly benefitted from this connection, further aiding its growth (Beattie, 1962). Importantly, rail enabled not only the movement of people, but essentially the movement of goods.

Developments like the flour mill in Gore in 1878 relied heavily on rail to shift goods, and was claimed to grow into the largest and most modern mills in the Southern hemisphere by the mid-20th century (Beattie, 1962: Hall-Jones, 1991). In Western Southland, strong representation to government and the creation of the Ohai Railways Board in the 1920s was essential to the development of the coal industry (Fitzgerald, 1998; Guttery, 2015). Rail connecting Wairio, Nightcaps and Ohai allowed miners to commute and goods and services to move to major centres, boosting the growth of communities and townships near the lines (Guttery, 2015).

For the major regional port at Bluff, completion of the rail in 1867 significantly increased the volume of trade, primary resources and agricultural products moving through the town. Additional storage buildings were constructed for the handling of increased agricultural production in its hinterland (Gray, 2001). The ability to commute, move goods effectively and enable greater regional connectivity encouraged growth in the region through the latter 19th and early 20th century.

A unique element to the development of Southland in the latter 19th and early 20th centuries was a "revolutionary scheme to generate, reticulate and supply power to the entire province of Southland", developed and devised by local Southlanders (Buckingham, 2016: 16). This was the opening of the hydro-electric station at Monowai, which in its infantile years enabled New Zealand to have the greatest proportion of rural people (over 80 per cent) in the whole of the developed world with access to electric power between the World Wars period (Buckingham, 2016). Small individual enterprises had started to develop their own power reticulation systems toward the latter 19th century.

The Southland Frozen Meat company in Bluff generated power upon opening in 1885, eventually lighting the wharves and supplying the Borough with street lighting by 1903 (Buckingham, 2016). Hydro-electricity in Matāura also was developed by the freezing works in 1891, selling power to the Gore Borough Council in 1905 and to Matāura in 1912. As a result, Gore became the third urban authority to retail electricity in New Zealand, after Reefton and Wellington (Smith, 1997: Buckingham, 2016). Monowai, however, was to take electricity reticulation to a whole new level in the Southland region. Opened in 1925, the reach of power across rural Southland "gave impetus to the province's dairy farming and other industries which resulted in Southland's steady growth during the whole of the twentieth century." (Buckingham, 2016: 19). This was essential to the development of the region, supporting town development and the steady and continual growth in agricultural and primary resource extractions.

Overall, early patterns of resource extraction and agricultural production have helped shape the development of Southland through its early post-European arrival history. While Section 3.3.7 details the current state of various resource extraction industries in the region, it is undeniable that this legacy of development is still reflected in the economic and social make-up of the region today. Detailed information on the economic histories of townships throughout Southland can be found in Moran *et al.* (2018).

3.3 Significant shifts in the latter 20th century

This section outlines the more recent trends and shocks that have shaped Southland's society. It is by no means a complete reflection, but instead attempts to discuss some of the more prominent national and regional impacts that have delivered either long-term, or abrupt short-term shifts to the region's socio-economic landscape.

3.3.1 Manapōuri and the genesis of conservation

Plans to develop hydroelectricity on Lake Manapōuri created a significant national conservation movement that was to shape Southland society for years to come. From a social perspective, this movement and the subsequent changes that it delivered is an important historical event, helping form the social identity of the wider Southland community.

The genesis of the Manapōuri Power Station starts in the political arena in 1957. The Labour party was elected into government and faced an economic crisis. New Zealand's economy at the time was argued to have been exposed, being overly reliant on agriculture (Knight, 2018). To build a stronger industrial base, the Government began searching for foreign investment opportunities to attract industry to New Zealand. They eventually brokered an agreement to allow Consolidated Zinc Co. (Comalco) the exclusive water rights of Lakes Te Anau and Manapōuri for 99 years, to develop and invest in a power scheme and aluminium-smelting operation (Knight, 2018). This power scheme proposed to dam the Waiau River, raising the level of Lake Manapōuri by 25 metres and raising Lake Te Anau levels to its maximum natural level for unusually long periods of time (Ellis and Palliser, 2019). News broke in 1960 that a deal between the government and Comalco had been signed, delivered behind closed doors and in direct violation to the National Parks Act 1952 (Knight, 2018). This mobilised public response, which was driven by conservation concerns of raising lake levels and the deceit of the deal between government and big business. A response burgeoned from Southland to become a wider, large-scale national movement.

Under the National Parks Act 1952, areas designated as national parks such as Fiordland National Park where Lakes Te Anau and Manapōuri are located, were to be preserved "as far as possible in their natural state in perpetuity" (Ellis and Palliser, 2019: 3). Public reaction to the potential damage of scenic value, natural beauty, surrounding vegetation and other environmental values of the Lakes began a process of conflict and protest under the "Save Manapōuri" campaign (Ellis and Palliser, 2019; Fitzgerald, 2000). This movement through the 1960s and 1970s was marked by nation-wide marches, a 25,000 signatory petition in 1960 and larger 264,907 signatory petition in 1970 presented to parliament, national speaking tours and fundraising certificates to support the campaign (Ellis and Palliser, 2019; Knight, 2018).

At the time, the "Save Manapōuri" campaign was New Zealand's largest ever environmental campaign and is now widely considered to have birthed a new age of environmental awareness across the country (Ellis and Palliser, 2019). It led to a Commission of Inquiry in 1970 and became central to the general election debate in 1972 (Fitzgerald, 2000). Labour swept to power on the back on their election pledge to leave lake levels unaltered in the power development scheme. Significantly for the previous National government in their bid for re-election, their underestimation of the power behind the Manapōuri movement led to numerous lost swing votes from voters who were committed to bringing about change (Knight, 2018). Labour delivered on its election pledge, going further to set up the Guardians of the Lake Manapōuri, a watchdog group that was charged with monitoring lake levels and protecting shorelines from damage, and reporting to the Minister for the Environment (Knight, 2018). In 1981, an amendment to the Manapōuri-Te Anau Development Act was passed, gazetting operating guidelines for the power station in relation to lake levels (Knight, 2018). Overall, the movement proved a major success in raising the profile of Southland's environment nationally, and for environmental conservation and

protection in general. The legacy of environmental conservation and a protection of iconic natural environments continues in the region.

3.3.2 Development of the Manapōuri Power Station

The actual development of the Manapōuri Power Station was a substantial engineering feat that also had implications not just in relation to the smelter development and for conservation, but also for the smaller Southland communities that surrounded it. In 1964 the Public Works Department established a hydro-construction village near Supply Bay on the Manapōuri-Te Anau highway, to help deliver the project (Fitzgerald, 2000). This settlement was home to the construction and operating teams of the power station up until the early 1990's, when the New Zealand Electricity Department (NZED) was corporatised in 1987 and the newly formed Electricity Corporation of New Zealand (ECNZ) began to sell its housing assets to staff and private owners in a downsizing move (Fitzgerald, 2000). The corporatisation of government departments and the establishment of State-Owned Enterprises (SOEs) took place under the fourth Labour Government's shift to neoliberal economics, resulting in several state assets being either sold or corporatised (Buckingham, 2016). As time passed, successive governments further restructured the power industry in New Zealand, where patterns of corporatisation and private investment enabled numerous companies and SOEs to manage power assets.

ECNZ's restructure delivered considerable job losses across the country. In 1987, 800 staff were made redundant from the national workforce of approximately 6000 (Sheridan 1995; Ministry of Energy, 1986). For Manapōuri, further restructuring to ECNZ led to the station no longer being manned and instead operated by remote control (Fitzgerald, 2000). Of the approximately 100 residents in the area who indicated they were involved in the power sector in the 1986 Census, only 36 remained in Manapōuri in 1991 and 12 in Te Anau (Fitzgerald, 2000). This indicates the impact that restructuring had on local town populations. The development of the hydro village significantly boosted Manapōuri township, providing key facilities such as tennis courts and a pool. Housing development increased housing supply significantly, which was all sold through restructuring. Fitzgerald (2000) notes that the presence of the power industry in Te Anau and Manapōuri also brought considerable opportunities, creating employment and a need for goods and services to supply the power scheme, new local infrastructure and services, and new tourism opportunities. The sustainability risk, however, became a reality and after successive restructuring, the changes "effectively broke the economic and social link between the community and the power production sector" (Fitzgerald, 2000: 29). Today, tourism and neighbouring agricultural production provide the backbone to the Manapōuri community, where holiday housing is prominent throughout the township. It is important to also note the conservation and environmental challenges that came as a direct result of the power station development for communities along the lower Waiau River. Concerns of low river levels and ensuing environmental impacts have been topical in public discussion and in the media, from the original development of the scheme to today (Waiau Rivercare Group, 2019; Stuff, 2020). Technological development and management progression in the power sector has markedly altered the community composition within the upper Waiau lakes area. These changes highlight the social and economic challenges that can exist within communities that are heavily supported by an individual sector.

3.3.3 Tiwai Point Aluminium Smelter

The development of the Tiwai Point Aluminium Smelter in 1969 marked a significant moment, creating a lasting impact for the Southland region and for New Zealand. Construction on the smelter began in 1969 after the establishment of a roading network and bridge across Awarua Bay to the site (Hall-Jones, 1991). The development of the smelter was also intricately tied to the establishment of the Manapōuri Power Station, as the smelter depended on the supply of a reliable and continual power source. By 1971, the smelter was completed and power from Manapōuri began to flow to the operation (Fitzgerald, 2000).

The impacts of forty years of smelter operation for the Southland region have been wide ranging over the years. Most obvious are the employment opportunities that have been created, both directly and indirectly, across the region. North (1993) states that in the early phases of operation there were two distinct phases of employment growth. From 1971 to 1975, employment grew from 509 when the smelter opened to 1005 employees. Between 1981 and 1984, employee numbers grew, peaking at 1464 (North, 1993). Of this employment, North (1993) argues at the time of writing that almost 90 per cent of Tiwai staff resided in Invercargill. Direct employment by the smelter in 1986 accounted for 5.7 per cent of the Invercargill City workforce in 1986, and about 4.2 per cent in 1991 (North, 1993). Wage payments to Tiwai staff in 1985 totalled approximately $51 million (Watt, 1985). In 2021, direct employment figures are still significant, with 992 employees and contractors employed by NZAS (New Zealand's Aluminium Smelter) (NZAS, 2021).

Indirectly, the reach of the smelter is also large as its operation draws on the external supply of a wide range of goods and services. North (1993) argues that support services such as engineering services and supplies, freight handling and transport, building supplies, electrical services, fuel, professional services, and clothing and safety supply have required the support of many small to medium-sized businesses, the majority of which are local. Accommodation and various hiring services have also contributed to indirect employment over the years. This contribution was acknowledged through a 1986 survey of Invercargill businesses, which revealed that 26 per cent of respondents saw the smelter as important for the generation of business (North, 1993). A multiplier effect, extending through the Invercargill and wider Southland business community, has been integral to the development and support of Invercargill City and the wider Southland region.

The smelter's economic contribution to Southland has been significant. Currently, NZAS contributes $406 million to Southland's economy, which is approximately 6.5 per cent of Southland's Gross Domestic Product (GDP) (NZAS, 2021). In its early development and operation, from 1966 to 1976, Watt (1985) states that Southland showed an absolute population increase (see Table 2 in Section 4.2.1), suggesting that the plant was able to substitute for a fall off in other business activity at that time and attract people to the area. The revenue and employment benefits of the smelter were considered particularly important during the 1980s, when rural restructuring (see Section 3.3.5) and large-scale primary sector layoffs (see Section 3.3.7) created a period of job uncertainty in Southland. North (1993) states that at the time the smelter was able to provide an element of stability to the region, where economic stimulation, the attraction of skilled people to the region, and support to the housing market were both needed and welcomed. The contribution of the smelter to Invercargill's housing stock has been substantial. During the smelter's early days, the New Zealand Construction Company (NZCC) was established to build, let and sell houses for NZAS. As part of a scheme to attract and retain staff, a total of 581 houses were built in the southern parts of Invercargill City, amounting to approximately ten per cent of the total increase in housing stock between 1971 and the early 1990s (North, 1993). While all houses are now in private ownership, the contribution to the city's property stock at a time of uncertainty was important and continues to have a legacy effect.

Recently, the smelter has acknowledged plans to wind-down operations and eventually close the plant, beginning in August 2021 (NZAS, 2021). Closure of the smelter has been threatened in the past, as continual debate over operating costs has led to government negotiations to maintain smelter operation. Even in this latest instance of threatened closure, recent negotiations with the current Labour government and a new energy contract agreement between the smelter and Meridian has ensured that the smelter will at least be in operation until 2024, with future plans up for discussion (Radio New Zealand, 2021a; Robertson and Woods, 2021; Rutherford, 2021). The

possible closure of the smelter raises a number of social, economic and environmental concerns for the Southland region. A potential loss of approximately $600 million in export earnings and $394 million in annual expenditure in New Zealand would cause substantial economic impacts to the Southland region. The loss of approximately 1000 direct jobs would also create economic and social flow-on effects throughout the region. As shown in Sections 3.3.6 and 3.3.7, the economic and social impacts that occur from large-scale industrial restructuring or closure can be detrimental and long-term.

The environmental impacts related to smelter closure are also highly contentious. Flooding in Eastern Southland in 2020 created a furore over the unsafe storage of ouvea premix near the banks of the Matāura River. Since then, there has been considerable media coverage, public protest, environmental activism, and court action over the storage of the premix, resulting in an agreement between the smelter and the Environmental Defence Society to remove the premix from the Matāura township (Radio New Zealand, 2021b). Environmental concerns related to the potential closure of the smelter and the requirement to return the site back to its natural state are also topical. Media reports of hazardous waste stockpiles on-site and a lack of environmental remediation planning in the area emphasise the future environmental concerns for this part of the Southland region (Kelly, 2021; Pennington, 2021a; 2021b; Radio New Zealand, 2021b).

3.3.4 'Think Big'

'Think Big', the labelled term for the National Government's programme of energy-related development projects from the late 1970s and early 1980s, marked a significant political decision that was to shape key social, political and environmental movements following its conclusion. It is important to briefly touch on 'Think Big' in this section as the decision making of the government at the time influenced New Zealand's environmental movements, its energy assets, and changes in agricultural practice. These events have helped shaped how society functions in Southland and New Zealand today.

Two global events in the 1970s created shocks in New Zealand's economic outlook, prompting a wave of infrastructural investment. Britain's joining of the European community in 1972 caused New Zealand to lose its secure access to the British market, decreasing export revenue (Barnett and Pauling, 2005). Then, oil crises hit, the first in 1973 over international disputes for Israeli support in the Yom Kippur War, and then in 1979 in relation to the Iranian revolution (Munro, 2020). Large spikes in the oil costs had global impacts, which were then intensified through decreased oil production later in the decade. Societal impacts were experienced in New Zealand. High unemployment and unique societal restrictions were experienced, such as the government's adoption of car-less days in the attempt to reduce national fuel consumption and wage and price freezes (Munro, 2020; Watkins, 2020). The response at government level was to diversify the New Zealand economy. The government created new primary processing industries and developed energy projects in the hopes of limiting foreign oil dependence, decreasing New Zealand's agricultural dependence, and encouraging overseas investment, which would then deliver jobs and act as economic stimuli (Knight, 2018; Two Cents' Worth, 2020). What ensued was an increase in state spending on agricultural subsidies, tax concessions for manufacturers, and 'Think Big' energy-related projects (Dalziel, 2002; adapted from Barnett and Pauling, 2005).

'Think Big' projects included a methanol plant at Waitara; an ammonia-urea plant at Kapuni; a synthetic-petrol plant at Motunui; expansion of the Marsden Point Oil Refinery, the New Zealand Steel plant at Glenbrook; electrification of the North Island main trunk railway between Te Rapa and Palmerston North; building the Clyde Dam on the Clutha/Mata-Au River; and for Southland, advancements to the Tiwai Point Aluminium Smelter at Bluff (Munro, 2020). Barnett and Pauling (2005) estimated that between 1974 and 1984, net public debt rose from five per cent to 32 per cent of GDP; unemployment rose from 0.2 per cent to 4.9 per cent; and in 1983 New Zealand lost

its triple-A credit rating. The government's financial deficit sat at 6.5 per cent of GDP (Evans *et al.*, 1996). As Knight (2018: 45) describes, "neither economic self-reliance nor prosperity was achieved through 'Think Big'; instead, the country was pushed to the precipice of bankruptcy". Further environmental-based advocacy and protests marked this era, where opposition to the Clyde Dam development and the 1979 National Development Act, which in essence was argued to raise the priority of large-scale works over environmental concerns, took place (Knight, 2018; Munro, 2020). In Southland, alongside concerns relating to Lake Manapōuri levels (see Section 3.3.1), environmental rallies also concentrated on government proposals to mill large areas of beech forest (Knight, 2018). Ultimately, "the reputation of 'Think Big' didn't survive the economic realities, or the political onslaught" (Two Cents' Worth, 2020), and in 1984 a snap election saw the Labour Party take power. Labour quickly repealed the National Development Act in 1986, and set in motion plans for free-market reform and deregulation. Some 'Think Big' projects still exist, and are arguably important energy assets for the country (Two Cents' Worth, 2020). However, the substantial budget deficits resulting from 'Think Big' created an overarching civic lack of faith in large-scale spending schemes (Munro, 2020).

3.3.5 Deregulation

The resulting impacts from 'Think Big' and New Zealand's poor financial situation in 1984 saw a change in government. The new Labour government implemented a radical, rapid reformation programme that completely reshaped the nation's economic, social and environmental outlook. Termed "Rogernomics", after then Finance Minister Roger Douglas, the government began reshaping New Zealand's economy in line with neoliberal ideology.

Globally, neoliberalist ideologies of free markets, structural adjustments and decreasing state intervention in society were adopted by many post-war states from the 1970s. The most infamous examples of this period came from the United Kingdom and the United States of America, led by Margaret Thatcher and Ronald Reagan, respectively. The underpinning principle of free market intervention naturally balancing out social and economic inequalities was aggressively applied to numerous state sectors, generating a period of austerity (McLachlan, 2018). Policy-wise, shifts to principles of neoliberalism drove "a near-universal policy prescription to reduce government spending, privatise State-controlled assets, deregulate the labour market, reduce the size of the public sector, dismantle impediments to the free flow of capital in and out of the national economy, and abandon policies that interfered with the operation of the market in allocating resources – including but not restricted to subsidies and tariffs" (Barnett and Pauling, 2005: 273, adapted from World Bank, 2001).

The appeal of neoliberal economic philosophy reached New Zealand by the 1980s. Knight (2018: 63) details the influence that ideas from the Chicago School of Economics began to have on the New Zealand Treasury, "which advocated a strong role for the market in the allocation of resources under the control of the state". The nation's precarious financial position following 'Think Big', combined with its insular economic nature and changing global political shifts, gave the new Labour government the incentive to enact sweeping reforms across the public sector. These reforms were "underpinned by the principles of commercialisation, efficiency, and the reigning in of state intervention" (Knight, 2018: 69). The list below exemplifies various policy changes introduced through neoliberal structural adjustment reforms by the fourth Labour Government in New Zealand, post-election in 1984:

- the removal of interest rates and foreign exchange controls in 1984;
- a floating of the exchange rate in 1985;
- the removal of agricultural subsidies and export assistance between 1984 and 1986;
- the removal of import licensing between 1984 and 1989;

- a progressive reduction of tariffs from 1984 onwards;
- the corporatisation and privatisation of publicly owned entities;
- the introduction of a goods and services tax and cuts in income tax in 1986;
- the removal of production and distribution controls in individual industries and services;
- substantial cuts in public expenditure;
- a deregulation of the labour market;
- a deregulation of financial markets;
- significant amendments to the Commerce Act to encourage efficient competition;
- the transference of regulatory responsibilities from the executive to the judiciary;
- the sale of numerous state-owned assets;
- the repealing of the National Development Act;
- the development of the 1991 Resource Management Act (RMA).

(Source: Wilson, 1995; Liepins and Bradshaw, 1999; Joseph *et al.*, 2001; Johnsen, 2003; Barnett and Pauling, 2005; Forney and Stock, 2013; and Knight, 2018).

Similar to overseas examples, what followed in the immediate aftermath of this systematic deregulation of the New Zealand economy was a period of austerity and social decline. Barnett and Pauline (2005, adapted from Kelsey, 1995; Rudd, 1997) note that rising unemployment, substantial reductions in welfare entitlements, and the deregulation of wages led to a rise in both absolute and relative poverty across the country. For example, "unemployment more than doubled between 1984 and 1989; and between 1988 and 1991 one in every three jobs in the manufacturing sector was lost" (Barnett and Pauling, 2005: 267, adapted from O'Brien and Wilkes, 1993; Hazeldine, 1998). This created change across all facets of society, establishing an enduring legacy that was both positive and negative.

Important in the Southland context is the impact of the neoliberal reforms and deregulation on agriculture and primary industries. Discussion on primary industries and dairy farming can be found in Sections 3.3.6, 3.3.7 and 3.3.8. The years that followed 1984 were referred to as the 'rural downturn', where "subsequent programmes of agricultural deregulation and wider macro-economic reform exposed the nation's farmers to the vagaries of the global market – at a time when international export prices for agricultural commodities were in decline" (Johnsen, 2003: 128). Significant hardships were endured across the rural community, influencing the way the industry is shaped today.

Deregulation, or what Le Heron and Roche (1999) describe as a more complex 'reregulation' of the agricultural industry in line with the opening of markets in other sectors, led to the removal of agricultural subsidies, secular declines in real prices and adverse exchange movements, where on-farm incomes dropped and costs climbed. Government subsidies before 1984 (known as the Supplementary Minimum Price (SMP) system), made up a large part of pastoral farming income, approximately 40 per cent of the average income of New Zealand's sheep and beef farmers at the time (Barnett and Pauling, 2005). Within 12 months, these payments were completely removed. This was significant, as drystock pastoral farming was the predominant agricultural sector at the time in Southland.

From an overarching political perspective, agricultural neoliberal reforms were championed as an important and successful step to provide the New Zealand economy with a stronger global outreach, creating greater opportunity. This was adeptly supported by the industry itself (Liepins and Bradshaw, 1999). Liepins and Bradshaw (1999: 568) argue that Federated Farmers New Zealand (FFNZ) helped shape the neo-liberal discourse of the industry, championing the market mechanism for both its 'efficiency' and 'freedom', effectively attempting to "manage or ignore many social issues and implications arising from a neo-liberal discourse by prioritising

certain values and criteria against which to measure or marginalize other social and economic concerns".

The immediate and even longer-term social and economic challenges across rural New Zealand were substantial, playing an important role in how agriculture is shaped today. For brevity, the list below exemplifies such impacts, ranging in implication:

- an increase in input costs due to higher interest rates and the removal of subsidies on services such as fertilisers and pesticides;
- a decline in the profitability of sheep meat and wool production;
- devaluation of rural land prices by up to 50 per cent;
- a general cut in spending on farm inputs, labour and investments;
- dramatically reduced incomes;
- rising farm debt, and a change in attitude to taking on debt;
- a decline in agricultural support services;
- instances of stress and physical ill health, both immediate and long-term;
- increased farmer and family exploitation, through unpaid labour increases;
- an increase in family off-farm work as a supporting mechanism;
- a disconnection between farming relationships and a sense of place;
- families leaving farming altogether, and an increase in corporate farming.

(Source: Joseph *et al.*, 2001; Campbell and Lawrence, 2003; Johnsen, 2003; Barnett and Pauling, 2005; Stock and Peoples, 2012; and Forney and Stock, 2013).

Research in Eastern Southland by Wilson (1994; 1995) points to some of the hardships and legacies that deregulation reform imprinted upon the region. Families that experienced greatest financial pressures during the downturn were those that purchased land in the late 1970s and early 1980s when land values were at their height (Wilson, 1994). These were the farms that were more likely to have been sold or developed strategies to remove debt and survive the downturn. Much like the above list, Wilson (1994; 1995) points out the high rates of off-farm work, particularly among women between 1984 and 1986 to support farm income, and a decline in hired labour on-farm. Reduced expenditure on inputs such as fertiliser and machinery, and a delay in major development work were other measures Eastern Southland farmers adopted to manage the decline and uncertainty of the time.

At the time, Eastern Southland was predominantly sheep and beef farming. Wilson (1995) notes that a lack of other local industries outside of manufacturing and agriculture made the area particularly vulnerable to the impacts of deregulation reforms. This period also saw strikes and industrial reforms in areas like the meat processing industry (see Section 3.3.6). This placed the agricultural industry, and the surrounding townships of Gore and Matāura under immense stress. Reduced agricultural expenditure from 1986 to 1989 was attributed to smaller supporting services closing in Gore. Revenues also declined for stock agencies (Southland Farmers Cooperative's reported losses of over one million dollars in the 1985/86 financial year due to a drop in sales) and fertiliser manufacturers (Southfert's sales dropped by more than 51 per cent between 1985 and 1987) (Wilson, 1995). Elsewhere, Forney and Stock (2013) note that through this broader period of deregulation, Invercargill was the only urban centre in New Zealand to experience population decline, dropping by almost five per cent from 1991 to 1996 (also see Section 4.2.1).

Overall, the 1980s reforms and resulting period of downturn and austerity placed significant economic, social and psychological pressure on communities across New Zealand, particularly in rural areas that were reliant on agricultural and primary industries. Southland experienced deep sociological changes throughout its rural communities. This was exemplified by a loss of skilled

workers, financial hardship, and community cultural shifts associated with the transition from drystock pastoral farming to dairy and a general intensification of the agricultural sector (Forney and Stock, 2013). While trade globalisation and the eventual recovery of the economy helped revive the rural sector, there are clear legacies from this period that have influenced and shaped the way Southland's society functions today.

3.3.6 Protests and closures in the meat industry

Global and national shocks through the 1970s and 1980s had several direct and indirect impacts in the Southland region. National directives and large-scale projects created positive and negative effects for the region, influencing societal structures and norms. However, it was the industrial action and the eventual closure of Ocean Beach freezing works that created significant economic and social consequences not just in Southland, but throughout the South Island. As noted in Section 3.3.5, the meat processing industry was subject to various political and agricultural shifts throughout this era, where insecure markets and deregulation processes led to a diminishing sheep and beef industry. Causalities in the meat industry were witnessed across New Zealand through changes in stock patterns, rundown plant facilities and expanding urban areas (Turner, 1984). Yet as Turner (1984) describes, the fallout at the Ocean Beach plant was not directly related to any such changes, but more to prolonged industrial action that led to large-scale staff protests, tension with the wider farming community, and substantial financial losses.

Ocean Beach was established in 1891. Its building was not only controversial politically but geographically. The plant was located illegally within one mile of Campbelltown borough (now Bluff) (Turner, 1984). From the 1970s until its eventual closure in 1991, the plant was scarred by heavy financial loses and a corrupt yet commanding union representation, in what Turner (1984: 11) describes as the "continued bloody battles between the plant management and the Ocean Beach Sub-branch of the New Zealand Meat Workers' Union". The plant ran at a loss every year from 1974 to 1984, with reported losses of up to $8 million under the three years of Alliance ownership from 1981 to 1984 (Turner, 1984). A heavily unionised workforce was often at odds with plant management and showed both an aggressive and united response through prolonged strikes, walkouts, and protests. These actions were in response to disputes over issues like employee conditions and contracts. Some of the more publicised controversies included a walkout by slaughtermen in 1977, leaving 440 carcasses to be condemned, and an estimated loss of one million stock units in 1984 because of industrial actions which resulted in an operating loss estimated at approximately $5 million (Turner, 1984). Leading union employee representatives were found to have embezzled funds and mobilised mass-scale employee protests as a means to aid their financial gain (Turner, 1984). The impacts for employees through industrial action were equally as high, where an estimated $10.36 million in earnings were forfeited from 1981 to 1984 (Turner, 1984).

The implications of industrial action extended further than Ocean Beach itself. In 1984, workers at the Lorneville plant "were to become embittered at the four weeks' wages they sacrificed for Ocean Beach during the season" (Turner, 1984). Financial and protest support for Ocean Beach workers by union members at other plants were not limited to Southland freezing works, and took place across the country. The broader Southland farming community expressed their exasperation at the constant closure of Ocean Beach and at the industrial action across other plants in Southland. Facing drought-related pressures and broader political and economic impacts at the time, farmers carried out a mass protest known as "Bloody Friday" in 1978. In this protest, approximately 1200 ewes were driven through the main street of Invercargill (Figure 2) before being slaughtered (Rudd, 2013: Poole, 2002). The inability to process stock created a lack of income for farmers and raised environmental and animal welfare challenges on-farm. The impact of this action reached the wider Southland community, and following "Bloody Friday", police were on alert for further protests and the possibility of "…an attempted take-over of a freezing works

by farmers and other action likely to cause conflict with the meat workers" (Poole, 2002: 88). The scale of industrial action before this event was already significant enough to require government input to resolve the situation. A five-point national peace plan for the freezing works industry was developed in 1977 (Turner, 1984). However, tension between the meat industry and farmers continued post-Bloody Friday, where Wilson (1994) notes that strikes in 1986 and in 1990 at Alliance freezing works in the region further deteriorated farmer loyalty and confidence.

Figure 2: Ewes run loose through Dee Street, Invercargill. (Source: Russell, 2013, adapted from The Southland Times, 1978)

Although there were indications that the Ocean Beach plant would close, its closure in 1991 still came as a shock and dealt significant hardship for employees, for Bluff township and for the wider Southland community. Ocean Beach employed approximately 1500 staff and was a major employer for the region (Savory, 2020a). Job opportunities in the freezing works industry have been identified as one factor that has, and continues to attract mātāwaka (all Māori) and their whānau to Southland (Moran *et al.*, 2018); a factor that has contributed to the population profile of the region over time (Sections 4.2 and 4.3). Bluff experienced a marked population decrease since Ocean Beach closed. Locally, this is argued to have limited sporting and recreational opportunities and led to less money in the community (Savory, 2020b). Such impacts are also argued to have negatively influenced areas like South Invercargill, where many Ocean Beach employees were based (Savory, 2020a). Industry volatility was also seen in other primary industries (Sections 3.3.5 and 3.3.7), highlighting the social challenges from large-scale industry closure and decline. Overall, this challenging period for the meat industry in Southland created significant social, economic and political impacts that remain evident across society today.

3.3.7 Other primary industry declines – coal, timber, fishing

The extraction and harvesting of natural resources were fundamental in Southland's post-European development. Through the 20th century, several factors led to the decline of resource extraction industries in the region. These declines caused sharp and ongoing

socio-economic impacts for the communities directly reliant upon those industries. In this section, the downturn of coal, timber and fishing industries are documented to illustrate social impact.

Within Southland, the effects of coal mine closures are visible in areas of Western Southland, where small towns (Ohai and Nightcaps, for example) once developed around coal have declined economically. Fitzgerald (1998: 20) describes the early relationship between coal and the Ohai and Nightcaps townships as "one of direct dependence". In the case of Nightcaps, the town site and the land for community amenities was provided by the mining company. Technological advancements, increasing environmental concerns and legislation around the use of coal, and governmental deregulation from the 1960s onwards greatly impacted coal mining in the south.

Technological advancements came in two forms. The dieselisation of the railways ultimately led to the phasing out of steam engines and coal use, effectively removing a large national coal user (Fitzgerald, 1998). The increasing electrification of households and advancements in home heating technology have also, over time, negated large-scale coal use. More significant from a community perspective, however, were the technological advancements in coal extraction that led to the mechanisation of the industry. Guttery (2015: 228) describes these advancements for Ohai township in the 1970s as a "commencement of a new era". Excavators, conveyors, screen machines and robotic bagging machines effectively took over the labouring-related activities, replacing the men who previously "dug the coal" (Fitzgerald, 1998; Guttery, 2015). The mines, which typically relied on a large, physical workforce, now required a smaller, engineering-based workforce. As Guttery (2015, 230 [*sic*]) states, "the reality was [that] the detailed knowledge, mining craft and skills of the underground miner, and his capacity for hard physical work, were no longer required". Mechanisation had a major impact on communities, as miners had few alternative employment options. Most moved out of the region.

Other factors were also affecting the coal industry at the same time. Coal consumption was reducing across New Zealand. Environmentally, carbon reduction and air quality control measures implemented by the government in cities such as Christchurch restricted coal use and therefore demand (Fitzgerald, 1998). Deregulation and corporatisation in the 1980s also had a detrimental effect on the industry (see Section 3.3.5). Corporatisation of the industry led to a review of the viability of state-owned coal fields. Nightcaps mines had already undergone closures in the 1970s, significantly effecting employment opportunities and leading to population declines as miners began to leave.

The 1987 State Coal (now known as Solid Energy) viability review led to the closure of all but one mine in Ohai (Fitzgerald, 1998). In 1986, approximately 260 people were employed in the state-owned Ohai mines, but by 1998 this was reduced to 68 (Fitzgerald, 1998). Despite various private coal mining attempts in Ohai and Nightcaps since the 1990s, the scale of the industry was to never be the same, greatly affecting local communities. From a social perspective, as miners moved away from Ohai and Nightcaps a gradual erosion of community amenities took place. Supporting businesses and services closed as the insecurity of the mines became apparent. Clubs and societies were forced to amalgamate and housing was sold cheaply, resulting in a weakened housing market and an increase of beneficiaries to the townships from larger centres. Cheap housing, rentals and overall living costs attracted beneficiaries (Fitzgerald, 1998).

Uncertainty and mining industry decline led to the severing of familial and community networks, as younger miners relocated while older generations stayed in the region (Fitzgerald, 1998). Household incomes across this period and into today have declined considerably in the area, due to limited work opportunities. The community identity in Ohai by the 1990s had shifted to one that was dominated by retired people, shearers and social welfare beneficiaries. In 1996,

approximately half of Ohai's workforce was employed in agricultural services (mostly shearing). Twenty years earlier, agricultural services had made up only one tenth of employment (Fitzgerald, 1998). Significant stress in the community was visible, where in extreme examples residents were unable to sell their homes and were forced to walk away from their assets (Guttery, 2015). In 2003, the local Ohai school closed as the school roll was too low (Guttery, 2015). Thus, the decline of the coal industry in Ohai and Nightcaps had led to dramatic consequences for the communities.

Declines in the timber and fishing industries created similar experiences in other parts of Southland. In places such as Riverton, the introduction of the Quota Management System (QMS), which restricted harvest for specific fish species, led to a decline in the fishing industry from the 1980s. The QMS was to underpin sustainable fish harvests for species with declining stocks, to protect those species and transition to a sustainable fishing industry.

McClintock (2000) described the boom period for the fishing of Paua, Blue Cod, and Rock Lobster being from the 1950s to the 1970s. During this period there was a substantial increase in the number of boats registered at the port. The growth of Riverton at the time was directly attributed to the success of the fishing industry. Many new houses were built, there was a growth in retailers and other supporting services in the town, and community organisations flourished (McClintock, 2000). However, the late 1980s saw a decline in fishing resources, where measures to protect declining species ultimately led to a reduction in the number of fishing boats operating in the area. From a community standpoint, McClintock (2000: 21) states that "restrictions on the harvesting of particular species have not only subjected individual operators to financial pressures, but have also affected the turnover of other business firms in the district". Decline was evident in the 1980s and early 1990s, before shifts from pastoral farming to dairying in the wider rural hinterland, and in tourism, helped resuscitate growth.

Similar to the coal industry, the impact of a declining timber industry in parts of Western Southland (Tuatapere and Otautau, for example) have had a significant impact on surrounding communities. Tuatapere was a valued service centre for the farming community and surrounding timber operations in the 1940s. Logging in the area peaked in the late 1940s. 25 operating sawmills were within a 15-mile vicinity of the township at this time (McClintock and Fitzgerald, 1998). Major factors from the 1950s, such as the depletion of available forest, environmental and conservation laws that have protected the harvesting of native timbers, and large-scale government deregulation and restructuring in the 1980s, led to the reduction of the timber industry in the region (McClintock and Fitzgerald, 1998).

Much like coal, the restructuring and corporatisation of the Forest Service in 1987 led to state-owned mills being sold to multinational companies. This, combined with decreasing rights to harvest native timbers, closed several mills. The impact on employment was almost instantaneous. McClintock and Fitzgerald (1998) state that the government-owned Forest Service operated two branches in the surrounding Tuatapere district, running five mills. This accounted for 158 jobs, with an estimated outreach through families and households that accounted for approximately 530 people, 460 of them residing in Tuatapere and another 70 living in nearby settlements (McClintock and Fitzgerald, 1998). In Tuatapere alone, 69 people were employed in 1986, which reduced to ten the following year because of restructuring (McClintock and Fitzgerald, 1998).

A decline in the timber industry had flow on effects for the community. Post-1980s, there was continual population decline, the closure of supporting services in Tuatapere (such as the Post Office, Bank, and other amenities), and a growing incidence of welfare dependency, unemployment, domestic problems, and petty crime (McClintock and Fitzgerald, 1998). Like with

fishing and coal mining, diminishing opportunities for timber harvesting reshaped the community. These communities now look to emerging tourist opportunities and pastoral and dairy farming in the surrounding hinterland.

In summarising this section, several flourishing primary industries across Southland have experienced fundamental decline from the 1980s. From a social perspective, the implications for small communities and their societal functions are longstanding. Changing identities, community structures, and a reliance on larger centres for services and amenities have been a part of a broader trend that has changed the way areas of rural Southland function.

3.3.8 Dairy farming

The substantial rise of dairy farming across Southland since the 1990s has had profound impacts on the social, economic, political and environmental fabric of the region. Its resurgence in the region, greatly enabled by governmental deregulation in the 1980s (see Section 3.3.5), is inherent through reported social metrics today. Added to this is the role that dairying development is predicted to play into the future well-being of the Southland region and New Zealand; a topical debate among current policy frameworks.

Dairy has a long history in Southland. Greenhalgh and Rawlinson (2013) note that parts of the early Southland landscape, which resembled the West Coast of today, were generally considered too wet for sheep farming. To adjust to this environment, early farmers ran beef cattle and a few dairy cows, with the milk transported to one of the 88 dairy factories across the region (Greenhalgh and Rawlinson, 2013). This scale of dairy farming was very much individual, family-business orientated that paled in scale of the dairy industry today. Post-World War II, however, dairying operations were displaced by the more prosperous sheep alternative.

From the 1950s, high prices for meat and wool led to conversions from dairy to sheep and beef farming. State subsidies to support meat and wool production were an underlying influence that supported industry prosperity and the closing of dairy plants around Southland (Forney and Stock, 2013). Subsidies from the 1940s to the 1970s are attributed to a period in New Zealand's economic history known as 'productivism', "characterised by government responses to global food shortages with a series of policy interventions, that insulated domestic markets and encouraged farmers to intensify agricultural production" (Greenhalgh and Rawlinson, 2013: 1, adapted from Ilbery and Bowler, 1998; Wilson, 2001, 2007; Jay, 2004, 2007). Lind (2013: 138 [*sic]*) notes that this period gave "most sectors of New Zealand business… [comfort] living with support or protection in one form or another", where policy interventions came in forms of import restrictions, tariffs, and export licensing agreements. However, the sheep-dominated agricultural landscape was to experience rapid change in the late 1990s with the removal of state subsidy support and deregulation in response to New Zealand's precarious financial stability in the 1980s.

Deregulation and its impact on the agricultural landscape in Southland has been discussed in detail in Section 3.3.5. Important to dairy, however, is the ensuing effects that deregulation created. Forney and Stock (2013) state that deregulation "allowed for different trajectories for each sector". For dairy, deregulation changes were not as sudden because the industry was already subject to open market interventions before the New Zealand economy was fully opened from 1984 (Forney and Stock, 2013). It had received few subsidies in comparison to the meat and wool industry, and the New Zealand Dairy Board had been developing alternative markets globally since the 1960s (Stock and Peoples, 2012). As Stock and Peoples (2012: 265) describe, "because dairy was not 'insulated' from market pressures, the industry was lean, mean and efficient when sheep production lost its protected status". In Southland, the agricultural community had been hit hard by deregulation, and with the region "close to the threshold of economic and social collapse", dairy served as the main solution to such challenges (Forney and Stock, 2013: 10). As shown in

Section 3.3.5, land became available and affordable as farmers were forced to either sell their properties, go into lending arrangements, or retire, because of high interest rates, soaring inflation and wildly fluctuating exchange rates (Wilson, 1995; Forney and Stock, 2013; Greenhalgh and Rawlinson, 2013).

Stock and Peoples (2012) note that the opportunities for dairy in Southland were not just financial. Other factors, such as climate, available land, and the geographical and spatial constraints in the North Island meant dairy was an attractive option for the region. Southland provided opportunities, such as large herd sharemilker jobs or the chance to become owners and operators. These opportunities were not as readily available in the North Island (Stock and Peoples, 2012). Taylor *et al.*, (1998: 2) note that climate-wise, the region's pastoral land and consistent rainfall suited dairy farming more so than other parts of the country, where "New Zealand is squeezed for good growing land that is not prone to drought". These factors made dairying in the region increasingly viable.

From an industrial perspective, the emergence of Fonterra as a "global dairy titan" was also significant in Southland's dairy growth. The merger of the New Zealand Dairy Group, Kiwi Cooperative Dairies and the New Zealand Dairy Board formed Fonterra in 2001. The merger involved approximately a quarter of New Zealand's export earnings, which equated to around seven per cent of the country's gross domestic product (Lind, 2013). The collective comprised 14,000 farmers, supported by over 18,000 employees across 120 countries (Lind, 2013). This was significant as the merger represented the growing influence, productivity and wealth of dairying in the South Island. Forney and Stock (2013) note that growing dairy infrastructure in Southland exemplified dairy wealth in the south. This was acknowledged by Fonterra's actions to "put Southland at the centre of global dairy commodity production" (Forney and Stock, 2013: 10), through actions such as the expansion of the Edendale plant. At the time, it was considered one of the larger regional dairy plants in the world.

As a result, Southland's agricultural land use shifted from supporting more than nine million sheep in 1984 to roughly four million in 2013 (Greenhalgh and Rawlinson, 2013; Vibart *et al.*, 2019). Dairy farming in 2019 represented approximately 20 per cent of Southland's agricultural land, and is projected to increase to almost 30 per cent by 2035 (Vibart *et al.*, 2019). Although the positive benefits of wealth creation, population stability, and employment have evidentially aided the region, there have been subsequent concerns around social and environmental trends.

Legal and social structures around farm real estate have been critiqued in relation to the dairy industry. It has been argued that foreign investments, corporate ownership and uncaring forms of farm management have undermined aspects of community life and well-being within emerging dairy regions (Forney and Stock, 2013). Future trends around corporatisation and diminishing family-owned farms are significant in relation to community well-being and cultural capital. Stock and Peoples (2012) suggest that community impacts, such as school demographics and the social identity of Southland communities are changing. Environmentally, significant concern in both academic, political and public spheres around the relationship between dairying and environmental degradation are evident. Vibart *et al.* (2019) argue that dairying requires more intensive farming, which can often lead to an increased environmental footprint. Today, the debate around dairying and environmental effects is far reaching in both the media, public opinion, and in policy contexts.

4 Southland's current social profile

The historical events that have influenced Southland's society give perspective to the social data that is available for the region today. This section will now present a range of social data to explore Southland's current social context. Data have been categorised into groupings to support the flow of the narrative and create greater access for the reading audience. Where appropriate, comparisons between regional Southland statistics and New Zealand statistics have been made to show how Southland data contrasts nationally. This is not a complete reflection of all social data available for the Southland region. The data presented here is considered most appropriate and useful to understand aspects of Southland's society, where useful observations between data sets can be made.

4.1 Data presentation

The majority of social data presented in this social assessment is sourced from Statistics New Zealand. Census data provides easily accessible socio-economic statistics with a high level of robustness and reliability. It is important to note that Census captures information from individuals where they are located on the day of the Census. It is therefore a snapshot in time and cannot provide 100 per cent accuracy at the regional level. It is, however, the most regionally representative data set that can be drawn upon when conducting a desktop study.

In general, the quality and quantity of social data available in New Zealand is inconsistent, particularly when exploring social information at a regional scale. Table 1 shows the various social indicators that are presented throughout this section, providing an assessment of the data quality in terms of its representativeness. This assessment has been made by the author to provide awareness for the reading audience. Social indicators that are marked with a high or medium risk require caution when they are interpreted. This data has higher error rates and is generally drawn from sources that use a smaller subset of the population than Census data. These issues are noted throughout the discussion in this section, where appropriate.

Table 1: Presented social indicators and a risk assessment of the data quality

Social Indicators	Data Quality	Social Indicators	Data Quality
Population		**Households**	
Historical population trends		Household change	
Historical population trends and percentage changes		Household ownership	
Usual resident population statistics		Median weekly rent	
Population change		Main forms of heating	
Age and sex groupings		House or flat colder than would like in winter	
2018 Census rounded median ages		Dampness and mould indicator percentages	
Age band percentages for townships		Household access to telecommunication systems	
Life expectancy at birth, by sex		Household telecommunication access by township	
Years since arrival in New Zealand		**Social deprivation**	
Annual permanent and long-term migration		NZDep2018 scores	
Length of residence and percentage change		Adequacy of income to meet everyday needs	

Social Indicators	Data Quality	Social Indicators	Data Quality
Southland age and sex groupings		Financial limitation percentages	
Māori age and sex groupings		Actions taken to keep costs down	
Population Diversity		**Social issues**	
Legally registered relationship status		Fear of crime and its effect on life	
Ethnic groups		Neighbourhood problem percentages	
Ethnicity percentages		Reported crime victimisations	
Birthplace		Safety and security	
Religious affiliations		**Trust and social capital**	
Economy		Unpaid activities and voluntary commitments	
Total personal income percentages		Percentage change of unpaid activities and voluntary commitments	
Income bands		Social contact with family and friends	
Employment		Loneliness perception	
Employment status percentages		Mean institutional trust ratings	
Employment status for townships		**Health and well-being**	
Occupation categories		Self-rated health status	
Education		One or more activity limitations	
Highest qualification percentages		Activity limitation forms	
Highest educational qualification by township		Cigarette smoking behaviour	
Learners in Vocational Education and Training (VET)		Regular smoking percentages, by ethnicity	
Schooling		Mental health indicators	
Number of schools and school rolls		Five-year annual average suicide rates	
School numbers, by category		Well-being indicator mean ratings	
Early Childhood Education services			

Key: Red = high risk, Orange = medium risk, Green = low risk

4.2 The Demographic of Southland

Population statistics provide an understanding of the people who live within the Southland region. Population composition provides insights into the segments of the population who may be (or have been) affected differently by past events. This section provides the descriptive statistics for Southland's population demographics.

4.2.1 General population

Southland is the 11th most populous region of the 16 regions of New Zealand. At the 2018 Census, Southland's population was 97,467 people, with a median age of 39.8 years. Between the 2006 and 2018 Census, Southland's population increased by 7.3 per cent. During the same time period, New Zealand's total population grew 16.7 per cent (Stats NZ).

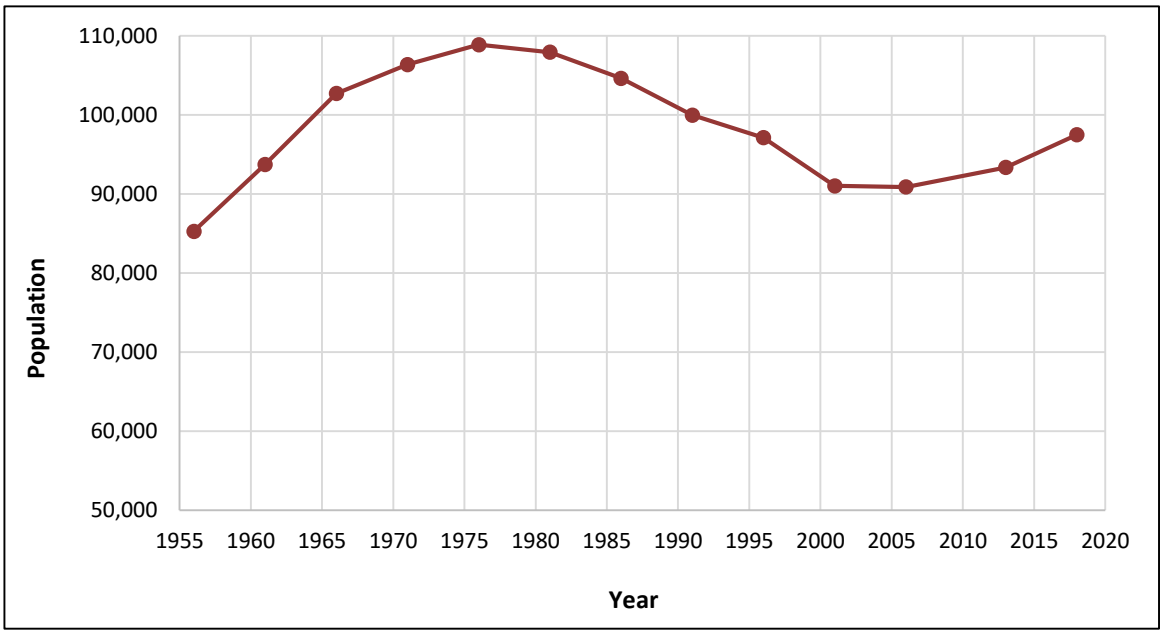

Figure 3: Historical population trends for the Southland region from 1956 to 2018. (Source: Stats NZ)

Figure 3 shows the region's population trend. There was significant population growth from the mid-1950s to the early-1970s, peaking at 9.9 per cent from 1956 to 1961 (see Table 2). Conversely, through the 1980s and 1990s the region experienced a steady decline in population, dropping 6.3 per cent between the 1996 and 2001 Census (Table 2). Section 3 shows how certain industry closures coincided with this time period. Overall, Southland's population has increased 14.3 per cent from 1956 to 2018, with 2006 having the second lowest-recorded Census population for the region.

Table 2: Historical population trends and percentage changes for the Southland region from 1956 to 2018. (Source: Stats NZ)

Year	Population	Percentage Change
1956	85,271	
1961	93,721	9.90%
1966	102,686	9.57%
1971	106,348	3.57%
1976	108,860	2.36%
1981	107,905	-0.88%
1986	104,618	-3.05%
1991	99,954	-4.46%
1996	97,098	-2.85%
2001	91,002	-6.28%
2006	90,876	-0.14%
2013	93,342	2.71%
2018	97,467	4.42%

Table 3 provides a regional breakdown of the 2018 Census population data at Statistics New Zealand's SA2 level. Southland is divided into 60 SA2 zones, 57 of which are inhabited. Table 3 shows how Southland's population is distributed across the region.

Table 4 shows the changes in population over the last three Censuses for the major cities and townships in the region.

Table 3: 2018 Usual resident population statistics for Southland region SA2 areas. (Source: Stats NZ)

Statistical Area 2	Usual Resident Population	Statistical Area 2	Usual Resident Population
Aurora	1332	Avenal	1263
Awarua Plains	1017	Bluff	1797
Clifton	1500	Crinan	1731
Donovan Park	2487	East Gore	1443
Edendale-Woodlands	2262	Elizabeth Park	1278
Fiordland	114	Georgetown	2040
Gladstone (Invercargill City)	2376	Glengarry	2634
Gore Central	183	Gore Main	1251
Gore North	1716	Gore South	630
Gore West	2691	Grove Bush	1158
Hargest	2073	Hedgehope	1176
Invercargill Central	1362	Kennington-Tisbury	1446
Kew (Invercargill City)	1965	Kingswell	2229
Longwood Forest	1986	Lumsden-Balfour	1311

Statistical Area 2	Usual Resident Population	Statistical Area 2	Usual Resident Population
Mararoa	777	Matāura	1629
Mossburn	1212	Moulson	1284
Myross Bush	1134	Newfield	2778
Ohai-Nightcaps	1479	Ōreti River	2100
Otatara	3144	Otautau	2808
Prestonville-Grasmere	3723	Richmond (Invercargill City)	3483
Riversdale-Piano Flat	1374	Riverton	1614
Rosedale	1878	Stewart Island	405
Strathern	2214	Te Anau	2535
Turnbull Thompson Park	1764	Waianiwa	1173
Waikaka	1560	Waimumu-Kaiwera	1296
Wallacetown	1176	West Plains-Makarewa	1602
Whitestone	618	Windsor	3087
Winton	2343	Woodend-Greenhills	600
Wyndham-Catlins	2202		

Table 4: Population change among Southland townships across recent Censuses. (Source: Market Economics, Stats NZ)

Township	Territorial Authority	Population			Population Change			Percentage Change		
		2006	2013	2018	2006-2013	2013-2018	2006-2018	2006-2013	2013-2018	2006-2018
Balfour	Southland District	138	126	117	-12	-9	-21	-9%	-7%	-15%
Bluff	Invercargill City	1803	1806	1797	3	-9	-6	0%	0%	0%
Edendale	Southland District	516	549	591	33	42	75	6%	8%	15%
Gore	Gore District	7764	7701	7914	-63	213	150	-1%	3%	2%
Invercargill	Invercargill City	44508	45450	47625	942	2175	3117	2%	5%	7%
Kennington	Invercargill City	114	123	114	9	-9	0	8%	-7%	0%
Lumsden	Southland District	426	420	492	-6	72	66	-1%	17%	15%
Manapōuri	Southland District	294	201	222	-93	21	-72	-32%	10%	-24%
Matāura	Gore District	1554	1509	1629	-45	120	75	-3%	8%	5%
Mossburn	Southland District	195	174	180	-21	6	-15	-11%	3%	-8%
Nightcaps	Southland District	309	294	306	-15	12	-3	-5%	4%	-1%
Oban	Southland District	291	273	300	-18	27	9	-6%	10%	3%

Township	Territorial Authority	Population			Population Change			Percentage Change		
		2006	2013	2018	2006-2013	2013-2018	2006-2018	2006-2013	2013-2018	2006-2018
Ohai	Southland District	357	306	267	-51	-39	-90	-14%	-13%	-25%
Otautau	Southland District	753	702	753	-51	51	0	-7%	7%	0%
Riversdale	Southland District	408	399	408	-9	9	0	-2%	2%	0%
Riverton	Southland District	1545	1464	1614	-81	150	69	-5%	10%	4%
Te Anau	Southland District	1932	1995	2535	63	540	603	3%	27%	31%
Tuatapere	Southland District	579	558	531	-21	-27	-48	-4%	-5%	-8%
Waikaia	Southland District	114	129	135	15	6	21	13%	5%	18%
Wallacetown	Southland District	612	681	717	69	36	105	11%	5%	17%
Winton	Southland District	2088	2217	2343	129	126	255	6%	6%	12%
Woodlands	Southland District	255	261	273	6	12	18	2%	5%	7%
Wyndham	Southland District	528	552	579	24	27	51	5%	5%	10%

Township-level population change reveals interesting trends across the last three Censuses. Te Anau recorded a significant spike in population from 2006 Census records to 2018 Census records. It is the township with the largest population growth across the entire Southland region over this 12-year period. Ohai, however has experienced the greatest population decline in population between 2006 and 2018, decreasing by approximately 25 per cent. As noted in Section 3.3.7, coal mining in Ohai has significantly declined and the population statistics highlight the flow-on effects on the township since the 1980s and 1990s.

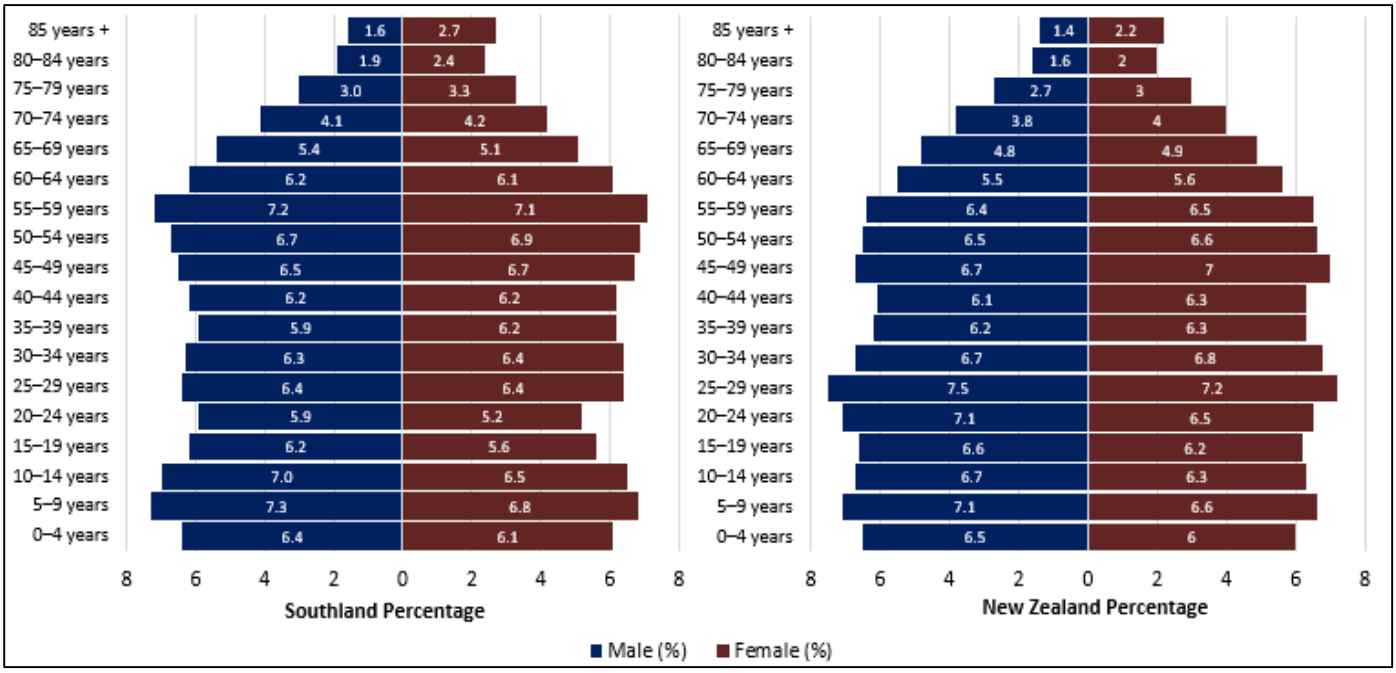

Figure 4: Age and sex groupings for Southland and New Zealand populations in the 2018 Census. (Source: Stats NZ)

Figure 4 provides gender and age group statistics for the Southland region and New Zealand. The comparative population pyramids reveal that a slightly larger percentage of the population in the Southland region lies in the over 50 years age group for both males and females compared to the national average. This highlights the regions ageing population. Among younger age brackets, Southland's population percentage for the combined 20-24 years and 25-29 years group is approximately 2.8 per cent less than the national percentage. These two categories represent the largest discrepancies across age groupings, suggesting that attracting young adults is a challenge for the region.

Southland's slightly ageing population is also reflected through its median age of 39.8 years (2018 Census), in comparison to the national median age of 37.4 years. This statistic can be attributed to several factors, such as declining job opportunities as noted in Section 3. However, more work is needed to determine if a causal relationship between job opportunities and population demographics exist.

Regardless of the reason behind Southland's ageing population, it does raise concerns for potential future challenges should this trend continue. For example, future stresses on health and care services, and the number of active people in the workforce. Table 5 below shows spatial disparities by median age groups at Statistics New Zealand's SA2 level. Again, Table 5 highlights the regions ageing population and where larger concentrations of older populations are located.

Table 5: 2018 Census rounded median ages at the SA2 level for Southland. (Source: Stats NZ)

Statistical Area 2	Median Age	Statistical Area 2	Median Age
Aurora	32	Avenal	37
Awarua Plains	32	Bluff	47
Clifton	35	Crinan	33
Donovan Park	49	East Gore	39
Edendale-Woodlands	37	Elizabeth Park	40
Fiordland	28	Georgetown	36
Gladstone (Invercargill City)	44	Glengarry	38
Gore Central	52	Gore Main	57
Gore North	47	Gore South	44
Gore West	43	Grove Bush	40
Hargest	37	Hedgehope	36
Invercargill Central	40	Kennington-Tisbury	42
Kew (Invercargill City)	36	Kingswell	38
Longwood Forest	43	Lumsden-Balfour	37
Mararoa	42	Matāura	40
Mossburn	38	Moulson	35
Myross Bush	44	Newfield	39
Ohai-Nightcaps	39	Ōreti River	39

Statistical Area 2	Median Age	Statistical Area 2	Median Age
Otatara	43	Otautau	37
Prestonville-Grasmere	39	Richmond (Invercargill City)	39
Riversdale-Piano Flat	38	Riverton	53
Rosedale	46	Stewart Island	50
Strathern	41	Te Anau	40
Turnbull Thompson Park	37	Waianiwa	37
Waikaka	40	Waimumu-Kaiwera	47
Wallacetown	40	West Plains-Makarewa	46
Whitestone	48	Windsor	45
Winton	45	Woodend-Greenhills	44
Wyndham-Catlins	41		

Key: Ages highlighted in red are the five highest medians. Ages highlighted in blue are the five lowest medians.

Spatially, median age patterns show the five younger median age population groupings are located exclusively within southern areas of Invercargill. Two of the five older median age areas are within the Gore township. Combined with Riverton, this spatial spread suggests that larger rural satellite towns are attractive to older residents. Table 6 shows the age group percentages of townships in Southland (based on the 2018 Census). It highlights the lower youth populations in places like Nightcaps, Riverton and Tuatapere, which aligns with the high median age of these townships.

Table 6: Age band percentages for townships in Southland Region, 2018 Census. (Source: Market Economics, Stats NZ)

Township	Territorial Authority	2018					
		0-14 Years	15-19 Years	20-39 Years	40-64 Years	65-79 Years	>80 Years
Balfour	Southland District	18%	5%	26%	26%	21%	5%
Bluff	Invercargill City	18%	5%	18%	38%	17%	4%
Edendale	Southland District	22%	6%	21%	36%	11%	3%
Gore	Gore District	17%	6%	21%	33%	16%	8%
Invercargill	Invercargill City	19%	6%	26%	31%	12%	5%
Kennington	Invercargill City	24%	5%	27%	38%	5%	0%
Lumsden	Southland District	20%	7%	25%	30%	12%	5%
Manapōuri	Southland District	9%	4%	21%	37%	23%	5%
Matāura	Gore District	21%	5%	24%	34%	14%	3%
Mossburn	Southland District	14%	9%	17%	40%	16%	5%
Nightcaps	Southland District	13%	7%	14%	43%	20%	4%

Township	Territorial Authority	2018					
		0-14 Years	15-19 Years	20-39 Years	40-64 Years	65-79 Years	>80 Years
Oban	Southland District	11%	3%	24%	38%	21%	3%
Ohai	Southland District	15%	8%	16%	41%	15%	4%
Otautau	Southland District	19%	6%	22%	34%	17%	2%
Riversdale	Southland District	19%	5%	23%	30%	19%	5%
Riverton	Southland District	16%	5%	16%	35%	23%	6%
Te Anau	Southland District	17%	4%	30%	32%	14%	2%
Tuatapere	Southland District	14%	3%	18%	37%	21%	6%
Waikaia	Southland District	14%	2%	19%	28%	26%	12%
Wallacetown	Southland District	24%	6%	24%	34%	11%	1%
Winton	Southland District	19%	4%	21%	29%	18%	8%
Woodlands	Southland District	18%	7%	25%	33%	14%	3%
Wyndham	Southland District	19%	5%	20%	35%	15%	6%

Life expectancy has increased since 2006 (Figure 5) for Southland and New Zealand, with a similar trend for males and females. Females, however, have a higher life expectancy than males. Compared to the New Zealand average, both males and females have a lower life expectancy. There could be many reasons why life expectancy is lower in the Southland region. Health statistics (Section 4.12) and occupational statistics (Section 4.5) provide insights but do not tell the whole story.

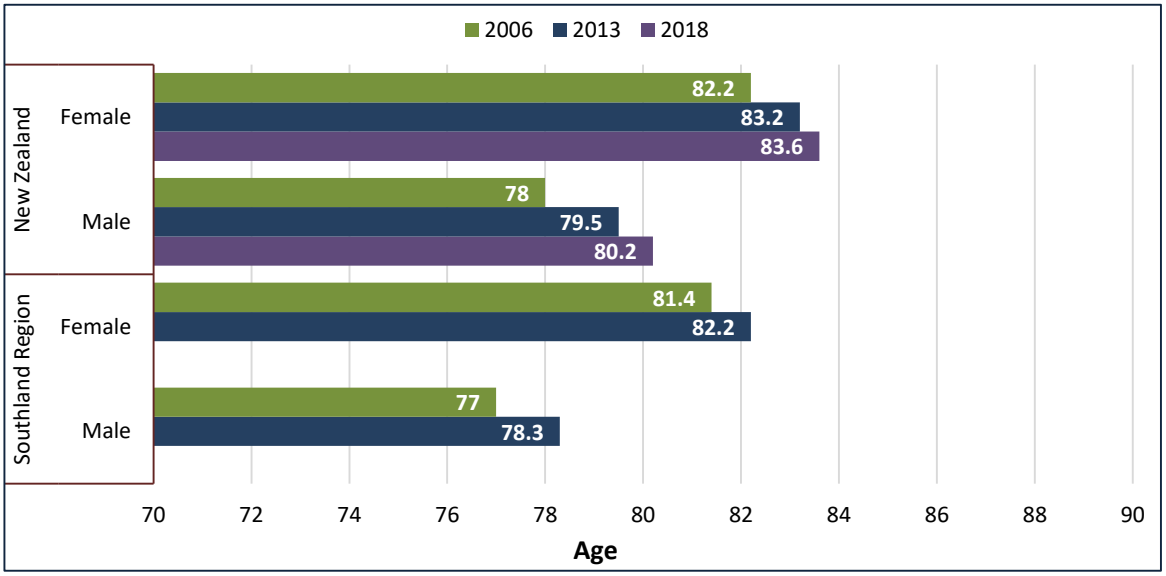

Figure 5: Life expectancy at birth, by sex, for Southland and New Zealand across recent Censuses. (Source: Stats NZ)

Migration affects population decline or growth. While Census data does not specifically provide migration information, the 'years since arrival' data can provide some insights into migration patterns. Table 7 presents arrival data for the Southland region and for New Zealand. Combined with

Table 4, it is possible to estimate the level of migration to Southland.

Table 4 shows Southland's population grew 2.71 per cent between 2006 and 2013, with 4.42 per cent growth from 2013 to 2018. Using the under 9 years since arrival categories from the 2018 Census, 51.6 per cent of the Census respondents have been in Southland for less than nine years (i.e. since 2006).

Table 7: Years since arrival in New Zealand for Southland region and New Zealand, across recent Censuses. (Source: Stats NZ)

Year since arrival	2006 Census		2013 Census		2018 Census	
	New Zealand (%)	Southland (%)	New Zealand (%)	Southland (%)	New Zealand (%)	Southland (%)
Less than 1 year	7	8.3	5.1	7	5.9	10
1 year	5.7	6.2	4.5	6	5.9	7.7
2 years	6.1	6	4.1	5.1	5.2	6.3
3 years	7.2	4.8	4.1	5.9	4.5	5
4 years	6.3	4	5.1	7.6	3.6	3.8
5-9 years	17	10.9	19.9	19.1	16.2	18.8
10-19 years	17.8	12.7	25	15.1	27.6	20.7
20 or more years	33	47	32.1	34.2	31	27.9

While Table 7 does not specifically provide migration figures, they do reflect Ministry of Business, Innovation and Employment (2017; Figure 6) international permanent and long-term migration data. This data shows a net migration gain (arrivals minus departures) between 2013 and 2016.

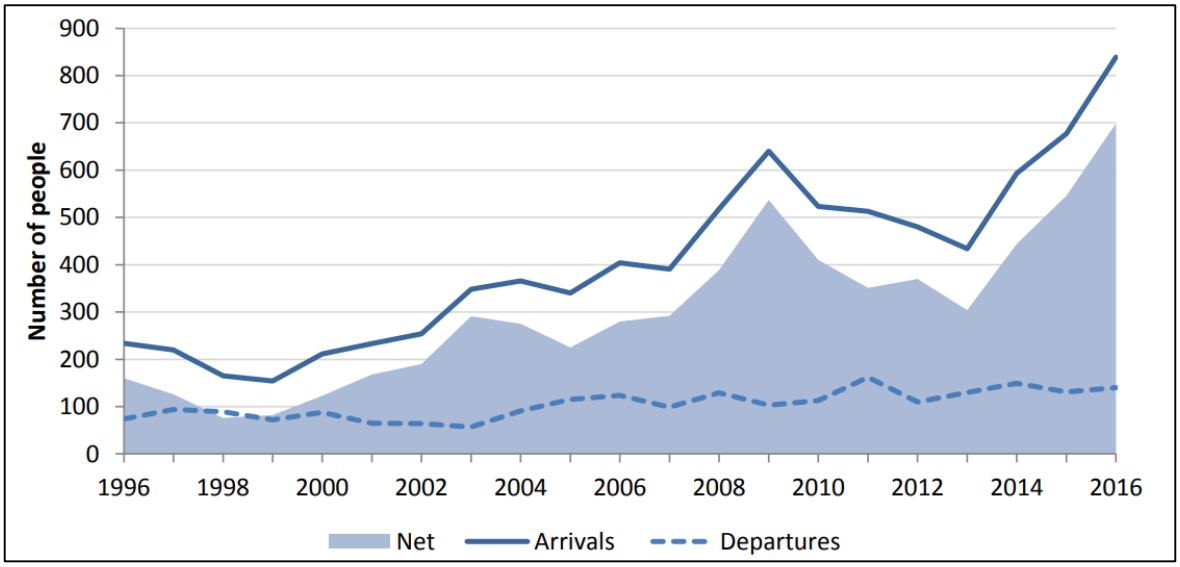

Figure 6: Annual permanent and long-term migration (excluding New Zealand and Australian citizens) to the Southland Region, year to June 1996-2016. (Source: Ministry of Business, Innovation and Employment, 2017: 6)

Table 8 presents length of residence for townships across the Southland region. Generally, there is a higher percentage of residents living in townships for less than five years, which also reflects the migration data in Figure 6. This information supports understanding, spatially, on how township populations change, and have changed, over time.

Table 8: Length of residence and percentage change for townships in Southland region, 2018 Census. (Source: Market Economics, Stats NZ)

Township	Territorial Authority	Residents		Percentage of Township Population	
		<5 Years	>15 Years	<5 Years	>15 Years
Balfour	Southland District	45	30	45%	30%
Bluff	Invercargill City	489	498	34%	35%
Edendale	Southland District	231	108	45%	21%
Gore	Gore District	3279	1587	47%	23%
Invercargill	Invercargill City	21282	8010	52%	19%
Kennington	Invercargill City	51	27	50%	26%
Lumsden	Southland District	231	57	55%	14%
Manapōuri	Southland District	99	45	49%	22%
Matāura	Gore District	567	327	44%	26%
Mossburn	Southland District	57	54	37%	35%
Nightcaps	Southland District	126	45	51%	18%
Oban	Southland District	132	81	49%	30%
Ohai	Southland District	99	51	52%	27%
Otautau	Southland District	285	129	45%	20%
Riversdale	Southland District	156	84	44%	24%

Riverton	Southland District	675	288	50%	21%
Te Anau	Southland District	1407	303	62%	13%
Tuatapere	Southland District	219	102	49%	23%
Waikaia	Southland District	48	33	40%	28%
Wallacetown	Southland District	276	135	42%	20%
Winton	Southland District	1044	402	50%	19%
Woodlands	Southland District	108	75	46%	32%
Wyndham	Southland District	225	105	46%	21%

4.2.2 Māori population

At the 2018 Census, the number of Māori in Southland sat at 14,484. This represented approximately 14.9 per cent of the general Southland population.

The median age of Māori in the 2018 Census in Southland equated to 25.1 years, substantially lower than the 39.8-year median age of Southland's general population. Nationally, there also is a substantial gap in median age figures between the general population (37.4 years) and of Māori (25.4 years). For Southland, the median age for Māori is only slightly lower, but there is a greater difference between median age figures for the general population and for Māori, compared to national statistics.

Nationally, the 2018 Census statistics show Māori made up approximately 16.5 per cent of the general population, which is higher than Southland. **A**ge category-based pyramids (Figure 7) show that a large portion of Southland's Māori population (both male and female) is under 19 years of age (41 per cent for females and 43.7 per cent for males). While Southland has an ageing population overall, this is not reflected in the Māori population. The number of older adults (60 years and above) is lower throughout the general population and lower than the rest of the Māori population for Southland.

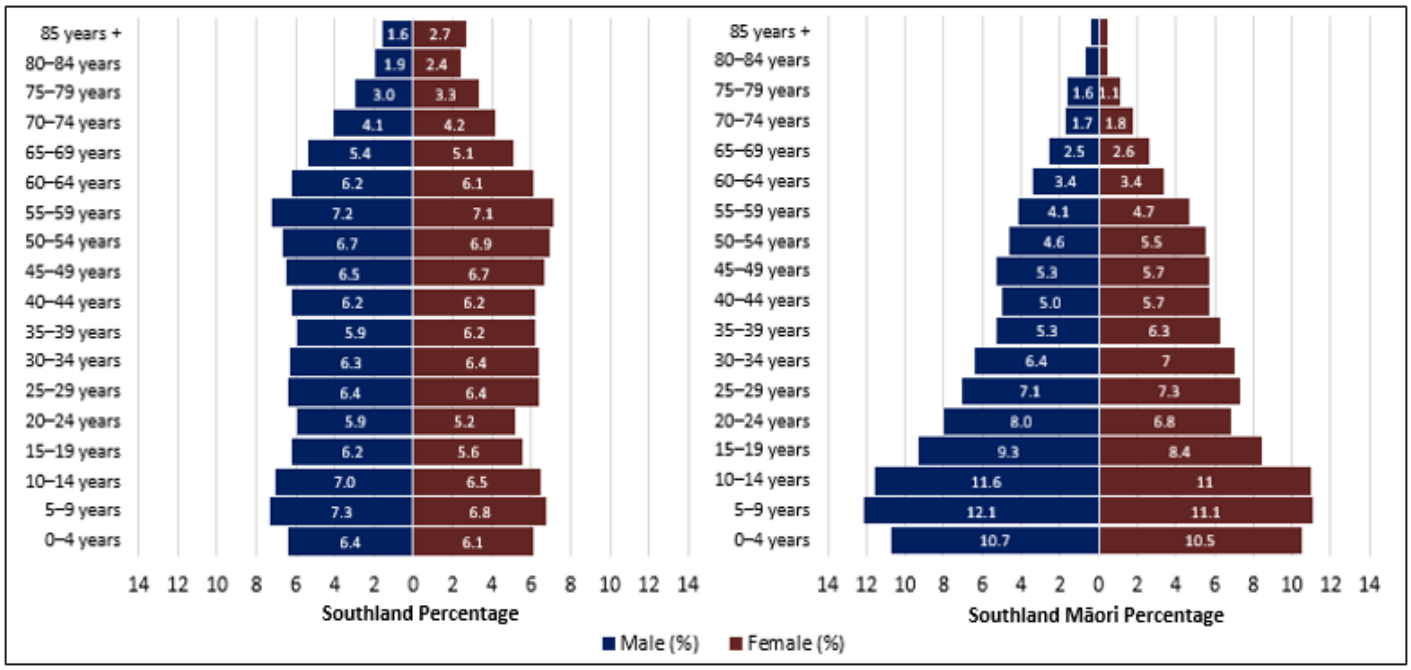

Figure 7: Age and sex groupings for Southland and the Southland Māori populations in the 2018 Census. (Source: Stats NZ)

Comparatively, subtle differences between the Southland Māori and the New Zealand Māori population are also evident. The Southland Māori population represents approximately 1.87 per cent of the overall New Zealand Māori population (2018 Census). Figure 8 shows there are more Māori children under 14 years of age in Southland compared to nationally, as well as a slightly lower percentage of Southland Māori adults between the combined 45 and 69 years of age categories. There are a number of reasons for these differences and some are discussed in the health (Section 4.12) and employment (Section 4.5) sections.

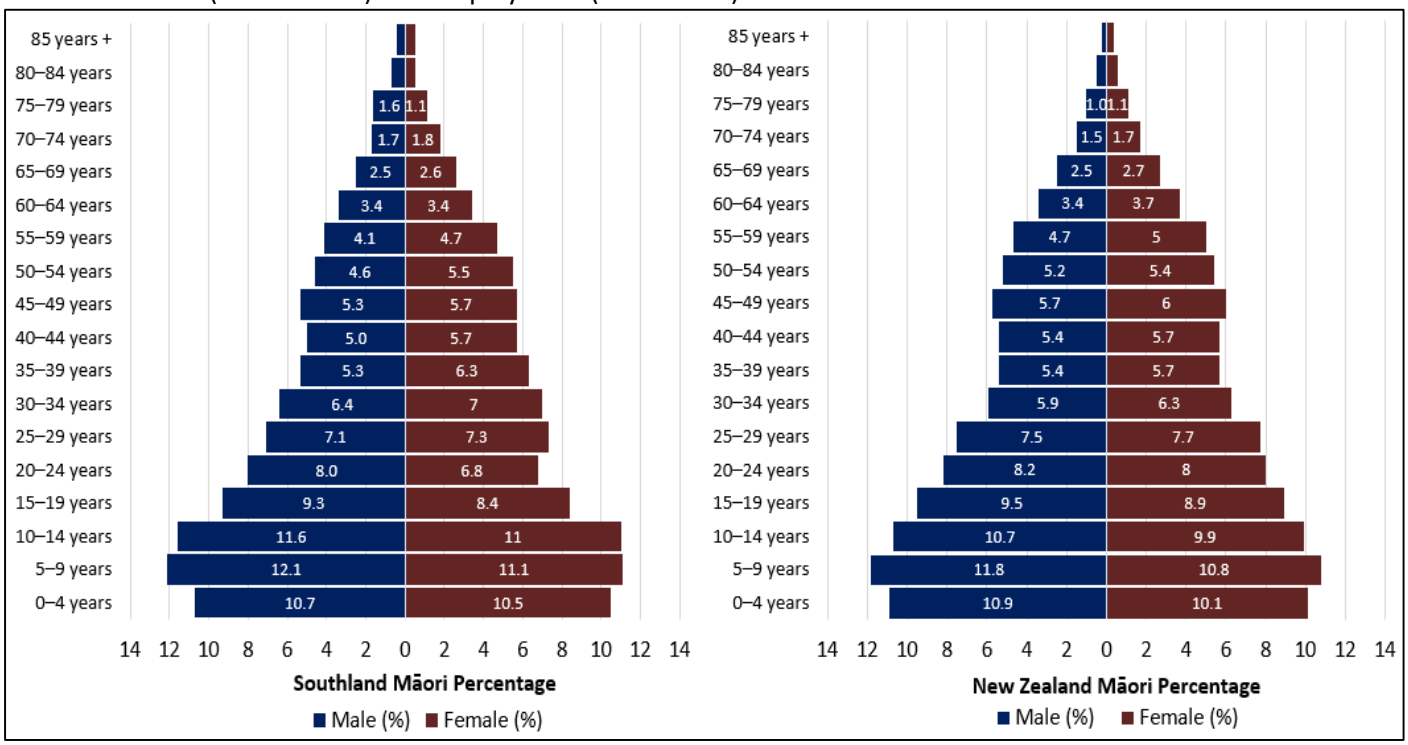

Figure 8: Age and sex groupings for Southland Māori and New Zealand Māori populations in the 2018 Census. (Source: Stats NZ)

4.3 Population diversity

Social data collected by Statistics New Zealand through the Census provide insight on the diversity within population structures. This section outlines some social metrics that provide more context for the demographics statistics in Section 4.2. This information can help provide an understanding of the broader economic and social disparities across the region.

In Southland there is an almost an equal 50 per cent split between males (48,705) and females (48,765). Nationally the gender split is more marked, but still relatively balanced with less males (2,319,558) than females (2,380,197).

Southland, however, has a larger rural population. Approximately 70 per cent of Southland residents reside in urban centres, compared to approximately 80 per cent of New Zealanders living in urban centres. Although Invercargill is the only city in the region and the biggest urban centre, it is still much smaller than the major centres of New Zealand. Invercargill is ranked the 16th most populous urban area in the 2018 Census. Southland has an expansive regional area (the second largest in New Zealand at 31,196 km^2) and the large scale of agricultural activity across the region

(see Section 3 and Moran *et al.*, 2017) provides not only for rural-based livelihoods, but for the region in general.

Relationship status is another social statistic that helps to understand household structure (Section 4.8) and the value of familial ties. Table 9 shows the legally registered relationship status of the general and Māori populations for both Southland and New Zealand. Southland has higher marriage rates for both the general and Māori population, and fewer individuals never married or in civil unions. Between the general and Māori population, Māori have much lower marriage rates and more individuals never being married or in civil unions.

Table 9: Legally registered relationship status among the general and Māori populations for Southland and New Zealand, 2018 Census. (Source: Stats NZ)

Category	Southland		New Zealand	
	General Population (%)	Māori Population (%)	General Population (%)	Māori Population (%)
Married (not separated)	50.1	34.2	48.6	29.6
Separated	3.1	3.9	3	4
Divorced or dissolved	7.6	6.7	7.8	6.5
Widowed or surviving civil union partner	6.7	3.8	5.3	4
Never married and never in a civil union	32.5	51.3	35.2	55.9

The ethnic structure of the regional and national population over the last three Censuses is outlined in Table 10. It should be noted in this table that the Census allows respondents to identify with multiple ethnic groups. Thus, total percentages may add to greater than 100 per cent of the actual population. The ethnic diversity in Southland differs to national statistics, with a higher proportion of Europeans and fewer other ethnicities. The percentage of Europeans in the last three Censuses peaked at 89 per cent in 2013, compared to 74 per cent for New Zealand. The overall patterns of ethnic change in Southland is similar to the New Zealand pattern.

Table 10: Ethnic groups for people in the Southland region and New Zealand, 2006 to 2018 Censuses. (Source: Stats NZ)

Category	Southland			New Zealand		
	2006 (%)	2013 (%)	2018 (%)	2006 (%)	2013 (%)	2018 (%)
European	78.6	89	86.5	67.6	74	70.2
Māori	11.8	13	14.9	14.6	14.9	16.5
Pasifika	1.7	2.1	2.6	6.9	7.4	8.1
Asian	1.3	3.2	5.5	9.2	11.8	15.1
Middle Eastern/Latin/ American/African (MELAA)	0.2	0.4	0.6	0.9	1.2	1.5
Other Ethnicity	15.7	2.3	1.5	11.2	1.7	1.2

Table 11 outlines the ethnic make-up of townships from the 2018 Census. Certain statistics in this table are missing, due to confidentiality issues related to small numbers of some ethnicities within townships. The townships of Bluff, Matāura, and Ohai show the strongest diversity in the region, where Māori representation is markedly higher than other Southland townships. The smaller Eastern Southland townships of Waikaia and Balfour have the lowest ethnic diversity, with the population dominated by Europeans. This table further highlights the low ethnic diversity within the region compared to national percentages.

Table 11: Ethnicity percentages for townships in Southland region, 2018 Census. (Source: Market Economics, Stats NZ)

Township	Territorial Authority	Percentage of Township Residents					
		Māori	European	Pasifika	Asian	MELAA	Other
Balfour	Southland District	10%	88%	0%	2%	0%	0%
Bluff	Invercargill City	35%	58%	5%	1%	0%	1%
Edendale	Southland District	12%	82%	2%	2%	0%	1%
Gore	Gore District	11%	85%	1%	2%	0%	1%
Invercargill	Invercargill City	15%	74%	3%	6%	0%	1%
Kennington	Invercargill City	19%	77%	2%	0%	0%	2%
Lumsden	Southland District	11%	80%	1%	6%	0%	2%
Manapōuri	Southland District	9%	86%	0%	1%	2%	1%
Matāura	Gore District	28%	67%	2%	2%	0%	1%
Mossburn	Southland District	15%	82%	0%	2%	0%	2%
Nightcaps	Southland District	16%	81%	1%	0%	0%	2%
Oban	Southland District	17%	80%	1%	1%	0%	2%
Ohai	Southland District	36%	63%	0%	0%	0%	1%
Otautau	Southland District	12%	85%	0%	1%	0%	1%
Riversdale	Southland District	12%	82%	1%	3%	0%	1%
Riverton	Southland District	19%	77%	1%	1%	0%	2%
Te Anau	Southland District	7%	77%	1%	11%	2%	2%
Tuatapere	Southland District	17%	78%	1%	2%	0%	2%
Waikaia	Southland District	6%	92%	0%	2%	0%	0%
Wallacetown	Southland District	10%	84%	1%	3%	0%	3%
Winton	Southland District	10%	84%	2%	2%	0%	1%
Woodlands	Southland District	11%	81%	1%	7%	0%	0%
Wyndham	Southland District	17%	78%	3%	1%	0%	1%

Note: Categories showing 0% may be marked so by Statistics New Zealand for confidentiality purposes, to protect the identity of individuals.

Census information also provides an understanding of birthplace locations for people in Southland and New Zealand who were born overseas (Figure 9). In 2018, approximately 12.3 per cent of people in the Southland region were born outside of the country, compared to 27.4 per cent for New Zealand overall. Southland shows a greater percentage disparity in people born the Pacific Islands compared to New Zealand overall, than to those born in Australia and Europe.

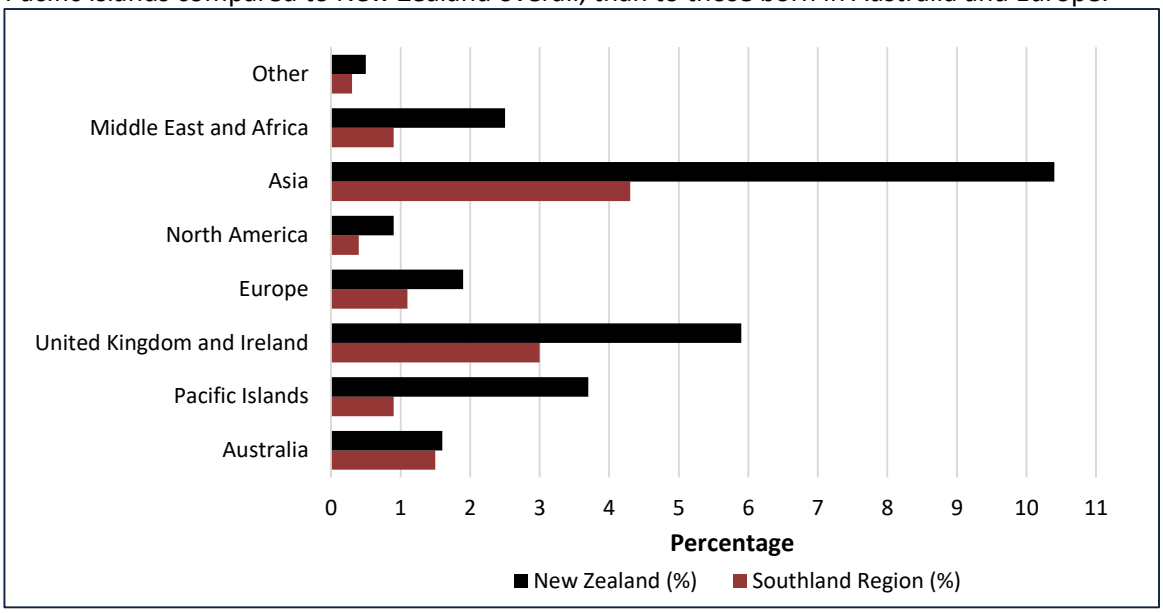

Figure 9: Birthplace for people in Southland region and New Zealand, 2018 Census. (Source: Stats NZ)

Religious affiliation (Table 12), alongside other population statistics, provides insights into cultural diversity among target groups, as well as understanding around lifestyle choices and livelihood approaches. Between the 2006 and 2018 Census, changes in religious affiliation mirrors those of New Zealand more broadly. Christian affiliation has consistently declined over time, with people with no religious affiliation increasing over the same time period.

Table 12: Religious affiliations for Southland and New Zealand, 2006-2018 Censuses. (Source: Stats NZ)

Category	Southland			New Zealand		
	2006 (%)	2013 (%)	2018 (%)	2006 (%)	2013 (%)	2018 (%)
No religion	32.9	42.9	50.7	34.6	41.9	48.2
Buddhism	0.4	0.5	0.4	1.4	1.5	1.1
Christian	60.5	51.9	38.5	54.2	47.7	36.5
Hinduism	0.2	0.4	0.6	1.7	2.3	2.6
Islam	0.2	0.2	0.3	1	1.2	1.3
Judaism	0.1	0.1	0	0.2	0.2	0.1
Māori religions, beliefs, and philosophies	0.8	0.7	0.5	1.8	1.4	1.3

Spiritualism and New Age religions	0.3	0.4	0.3	0.5	0.5	0.4
Other religions, beliefs, and philosophies	0.2	0.3	1.1	0.6	0.8	1.9
Object to answering	6.6	4.3	7.5	6.5	4.4	6.7

4.4 Economy

This section looks at some of the general economic statistics for the region, providing some national comparison. The aim of this section is not to explore the Southland economy in any depth, as other reports in the PWL programme provide this detail, such as The Southland Economic Project (Moran *et al*., 2017; 2018). Additional complementary work is also being undertaken in relation to Te Ōhanga ki Murihiku: The Māori economy.

The most important economic statistics for this social assessment are personal incomes (Table 13), as it provides information on individual and household financial means. Southland has a smaller portion of its population in the over $100,000 or below $10,000 income categories that for New Zealand in general. There is a higher percentage of people, however, in the $30,000 to $70,000 income categories in Southland. A similar trend is seen for the Southland Māori population compared to national Māori statistics. Generally, there is a higher percentage of Māori (in Southland and New Zealand) in the under $15,000 income categories, and a lower percentage in the over $50,000 income categories than the general population. Māori in Southland, however, do have a lower portion of their population in the lower income categories and more in the higher income categories (up to $100,000) than the overall New Zealand Māori population.

Table 13: Total personal income percentages for the general population and for Māori in Southland and New Zealand, 2018 Census. (Source: Stats NZ)

Category	Southland General Population	New Zealand General Population	Southland Māori Population	New Zealand Māori Population
Loss	0.5	0.5	0.5	0.7
Zero income	5.1	6.8	6.6	8
$1-$5,000	4.7	5.6	6.4	7
$5,001-$10,000	4	4.7	5.2	6.1
$10,001-$15,000	6.8	6.9	8.2	9.6
$15,001-$20,000	10.5	9.9	10.2	11.7
$20,001-$25,000	9.3	8.1	9.1	8.2
$25,001-$30,000	6.7	5.6	7	5.9
$30,001-$35,000	5.7	4.9	5.9	5.1
$35,001-$40,000	6.3	5.6	6.5	5.9
$40,001-$50,000	10.6	9.7	10.5	9.3
$50,001-$60,000	9.2	8.2	8.2	7.3
$60,001-$70,000	6.6	6.2	5.8	5
$70,001-$100,000	9.1	9.6	7.3	6.8
$100,001-$150,000	3.1	4.7	2	2.4
$150,001 or more	1.8	2.9	0.8	1.1

Table 14 shows the income distribution across townships in Southland, and highlights income disparities across the region. In Western Southland, the townships of Ohai and Nightcaps report a higher percentage of residents earning less than $20,000 per annum, as well as a lower percentage of earners above $50,000 per annum. This aligns with Section 3.3.7, where less job opportunities and an increased number of beneficiaries moving to declining townships with cheaper housing stocks and rental opportunities became evident from the 1990s. Townships like Ohai also have a higher percentage of Māori residents (Section 4.2), and the lower income percentages in the township could be related to the lower incomes of many Māori in Southland.

Table 14: Income bands for township residents in Southland region, 2018 Census. (Source: Market Economics, Stats NZ)

Township	Territorial Authority	Number of Residents			Percentage of Residents		
		0-20k	20-50k	>50k	0-20k	20-50k	>50k
Balfour	Southland District	27	12	24	43%	19%	38%
Bluff	Invercargill City	441	267	399	40%	24%	36%
Edendale	Southland District	144	69	162	38%	18%	43%
Gore	Gore District	2145	1218	1677	43%	24%	33%
Invercargill	Invercargill City	12954	6606	10359	43%	22%	35%
Kennington	Invercargill City	33	3	30	50%	5%	45%
Lumsden	Southland District	147	66	99	47%	21%	32%
Manapōuri	Southland District	54	45	45	38%	31%	31%
Matāura	Gore District	471	246	249	49%	25%	26%
Mossburn	Southland District	54	12	45	49%	11%	41%
Nightcaps	Southland District	132	54	36	59%	24%	16%
Oban	Southland District	69	57	84	33%	27%	40%
Ohai	Southland District	117	48	30	60%	25%	15%
Otautau	Southland District	234	105	132	50%	22%	28%
Riversdale	Southland District	102	51	120	37%	19%	44%
Riverton	Southland District	495	249	381	44%	22%	34%
Te Anau	Southland District	510	372	555	35%	26%	39%
Tuatapere	Southland District	171	99	96	47%	27%	26%
Waikaia	Southland District	42	24	27	45%	26%	29%
Wallacetown	Southland District	150	60	198	37%	15%	49%
Winton	Southland District	573	354	567	38%	24%	38%
Woodlands	Southland District	57	36	81	33%	21%	47%
Wyndham	Southland District	177	96	123	45%	24%	31%

Other social metrics related to employment (Section 4.5), employment types (Section 4.5), and educational opportunities (Section 4.6) may also be linked to lower income categories and trends, as well as historical events.

4.5 Employment

Gainful employment; the ability to earn an income and fulfil a livelihood of value, sits as an important functioning within both individual and household well-being. Employment relates to the ability to support oneself and one's household (income and wealth, and work and job quality), and to the mental (health) and social connections that work satisfaction and one's contribution within society gives. The ability to be employed is also related to aspects of physical health and capability (see Section 4.12). Employment is tied to income generation and often to educational qualifications. This section will provide a high-level assessment and discussion of employment status and status trends.

Table 15 outlines Census data on employment status in Southland and New Zealand in general. This provides comparable statistics across both the general populations, as well as among Māori.

Table 15: Employment status percentages for the general and Māori populations in Southland and New Zealand, 2006-2018 Censuses. (Source: Stats NZ)

Category	Southland			New Zealand			Southland Māori			New Zealand Māori		
	2006	2013	2018	2006	2013	2018	2006	2013	2018	2006	2013	2018
Employed Full-time	53	51.6	52.5	50.1	48	50.1	51.5	49.6	53.5	48	43.4	47.7
Employed Part-time	15.6	15.6	15.6	14.9	14.3	14.7	15.8	15.5	16.7	13.6	13.1	14.7
Unemployed	2.7	3.3	3.1	3.5	4.8	4	5.9	7.1	5.6	7.6	10.4	8.1
Not in the Labour Force	28.6	29.5	28.8	31.5	32.9	31.3	26.8	27.8	24.5	30.7	33.1	29.4

When looking at both the Southland general and Southland Māori population in relation to national comparisons, Southland has lower unemployment across the three most recent Censuses. There is also a lower percentage of the population not in the workforce, which translates to higher full-time and part-time employment percentages than the general population. For Māori, there are higher rates of unemployment than the general population, both in Southland and nationally.

Employment status by township for the 2018 Census is shown in

Table 16. Townships such as Ohai and Nightcaps, which have a higher portion of their populations in lower income categories, have a higher percentage of residents who are either unemployed or not in the labour force. Other townships, such as Wallacetown, Te Anau and Oban, have a high percentage of working residents.

Table 16: Employment status for townships in Southland Region, 2018 Census. (Source: Market Economics, Stats NZ)

Township	Number of Residents				Percentage of Residents			
	Full time	Part time	Unemployed	Not in Labour Force	Full time	Part time	Unemployed	Not in Labour Force
Balfour	51	18	0	30	52%	18%	0%	30%
Bluff	726	225	48	465	50%	15%	3%	32%
Edendale	258	72	12	120	56%	16%	3%	26%
Gore	3087	963	174	2301	47%	15%	3%	35%
Invercargill	19002	5592	1524	12171	50%	15%	4%	32%
Kennington	51	15	6	12	61%	18%	7%	14%
Lumsden	189	63	15	129	48%	16%	4%	33%
Manapōuri	108	36	0	54	55%	18%	0%	27%
Matāura	651	159	51	423	51%	12%	4%	33%
Mossburn	84	24	6	39	55%	16%	4%	25%
Nightcaps	96	45	18	102	37%	17%	7%	39%
Oban	150	42	3	66	57%	16%	1%	25%
Ohai	78	33	15	99	35%	15%	7%	44%
Otautau	294	81	21	219	48%	13%	3%	36%
Riversdale	165	51	6	99	51%	16%	2%	31%
Riverton	558	222	39	528	41%	16%	3%	39%
Te Anau	1290	333	21	447	62%	16%	1%	21%
Tuatapere	201	57	15	177	45%	13%	3%	39%
Waikaia	48	21	3	45	41%	18%	3%	38%
Wallacetown	330	60	24	129	61%	11%	4%	24%
Winton	846	291	51	708	45%	15%	3%	37%
Woodlands	132	33	12	45	59%	15%	5%	20%
Wyndham	222	78	15	147	48%	17%	3%	32%

Types of employment is shown in Figure 10 for the 2018 Census data. While these types of employment categories are quite general, they do provide a broad understanding of whether people are employed in jobs within primary, secondary and tertiary industries. Southland has a higher percentage of the working population employed in labouring-type roles than a nationally. At a high level, the 'labourers' category includes: cleaners and laundry workers; construction and mining labourers; factory process workers; farm, forestry and garden workers; and food preparation assistants (Stats NZ). In contrast, the percentage of professional-based employees in Southland is considerably lower than national averages. At a high level, the 'professionals' category includes: arts and media professionals; business, human resource and marketing

professionals; design, engineering, science and transportation professionals; education professionals; health professionals; information and communication technology professionals; and legal, social and welfare professionals (Stats NZ). These results align with the discussion presented in Section 3, which shows that Southland was, and still is, heavily based on primary industry.

For Māori, there is a higher percentage of the population in labouring and community and personal service categories. Approximately 30.2 per cent of the Southland Māori working population are represented in the labouring employment category. Māori are also under-represented in managerial and professional employment categories, both in Southland and across New Zealand.

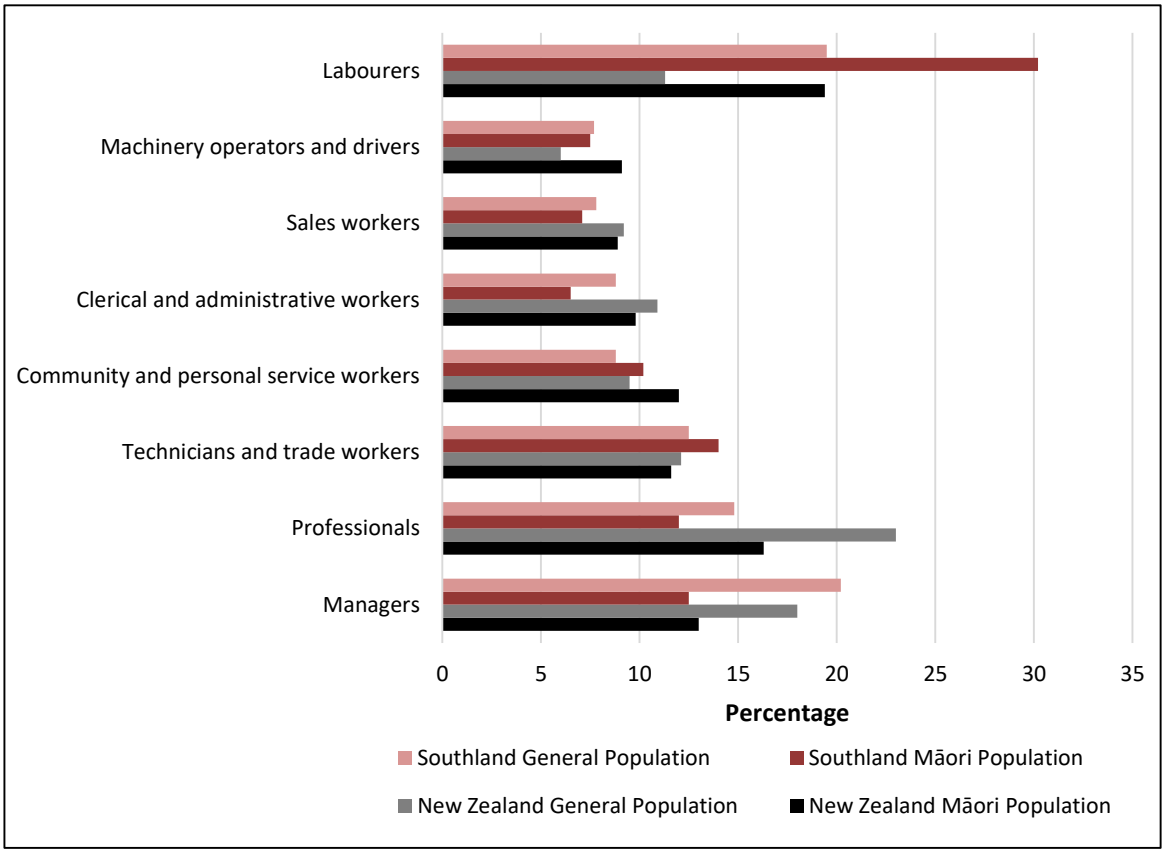

Figure 10: 2018 Census occupation categories for the Southland region and New Zealand, both Māori and general populations. (Source: Stats NZ)

4.6 Education

Access to education is important for building human capital, which influences knowledge and skills and subsequently jobs and income. Educational statistics are often used in combination with economic indicators to understand how local economies function and the capability a society holds. Table 17 provides educational qualifications from the last three Censuses. The percentage of people in Southland with no qualifications is higher than New Zealand overall, and in particular for Māori. In terms of tertiary education (bachelor's degrees to doctorates), Southland has a lower percentage of the population with tertiary degrees than New Zealand has nationally. This likely reflects the greater number of labouring-type jobs in the region and people in lower income categories, which often aligns to low-skilled labouring roles.

Table 17: Highest qualification percentages among Southland region and New Zealand populations, both general and Māori, 2006-2018 Censuses. (Source: Stats NZ)

Category	Southland			Southland Māori			New Zealand			New Zealand Māori		
	2006	2013	2018	2006	2013	2018	2006	2013	2018	2006	2013	2018
No Qualification	35.6	30	26.7	43.6	36	29.1	25	20.9	18.2	39.9	33.3	25.3
Level 1 Certificate	17.7	17.4	15.5	18.9	19.2	17.3	13.9	13	11.2	17.3	16.9	13.8
Level 2 Certificate	11.1	12	11.9	11.1	13.3	14.3	10.8	10.7	9.9	11.5	12.9	12.7
Level 3 Certificate	5.9	6.9	9.1	7	8.6	12.3	8.7	9.6	11.3	9.4	11.3	16.1
Level 4 Certificate	11	11.1	10.1	8.8	9.6	9.6	10.1	9.7	8.8	8.4	8.8	11
Level 5 Diploma	3.7	4	4.9	2.6	3.1	5.4	3.9	4.4	4.9	2.9	3.4	5.3
Level 6 Diploma	4.5	4.1	4.3	2.6	2.4	2.8	5.6	4.9	5	3.1	2.8	3
Bachelor's Degree + Level 7	6.7	8.8	9.9	4.4	5.9	6.7	11.2	13.6	14.6	5.5	7.5	8.4
Post-graduate + Honours Degree	1	1.7	3.3	0.4	1	1.7	2	2.9	5.7	0.8	1.3	2.5
Master's Degree	0.6	0.9	1.3	0.1	0.5	0.5	2.1	2.8	3.7	0.7	1	1.3
Doctorate Degree	0.2	0.2	0.3	..c	..c	0.1	0.6	0.7	0.8	0.1	0.2	0.3
Overseas Secondary School	2	3	2.7	0.5	0.4	0.3	6.1	6.7	5.9	0.4	0.5	0.4

Key: ..c = Confidential. (Statistics New Zealand marks certain statistical groups confidential when population fields are low enough to possibly identify individuals).

The breakdown of educational attainment at the township level across the Southland region is shown in Table 18. Those towns that have historically, and currently rely on natural resource extraction and primary industries show higher percentages of no formal education. For example, Tuatapere, Ohai, Nightcaps, Waikaia, Matāura and Bluff have the highest percentages of no qualifications, and have a strong relationship with the primary sector. Te Anau and Oban, on the other hand, have the lowest percentages of no formal education across the region's townships.

Table 18: Highest educational qualification by township for Southland region, 2018 Census. (Source: Market Economics, Stats NZ)

Township	Territorial Authority	Percentage of Residents						
		No Formal Education	High School	Post-High School	Undergraduate	Masters Degree	Doctorate	Overseas High School
Balfour	Southland District	35%	39%	16%	6%	0%	0%	3%
Bluff	Invercargill City	39%	36%	18%	6%	1%	0%	1%
Edendale	Southland District	27%	40%	21%	10%	0%	0%	1%
Gore	Gore District	32%	36%	20%	9%	1%	0%	2%
Invercargill	Invercargill City	27%	36%	19%	14%	2%	0%	3%
Kennington	Invercargill City	21%	39%	29%	7%	0%	0%	4%
Lumsden	Southland District	33%	36%	15%	11%	2%	0%	4%
Manapōuri	Southland District	26%	37%	15%	12%	3%	0%	6%
Matāura	Gore District	39%	41%	14%	3%	0%	0%	3%
Mossburn	Southland District	35%	31%	23%	8%	0%	0%	2%
Nightcaps	Southland District	40%	33%	12%	11%	1%	0%	2%
Oban	Southland District	19%	28%	23%	20%	6%	1%	4%
Ohai	Southland District	48%	32%	15%	3%	0%	0%	2%
Otautau	Southland District	36%	35%	16%	9%	1%	0%	3%
Riversdale	Southland District	30%	43%	16%	8%	2%	0%	2%
Riverton	Southland District	32%	34%	19%	12%	0%	0%	2%
Te Anau	Southland District	18%	33%	23%	18%	2%	0%	6%
Tuatapere	Southland District	40%	36%	13%	9%	1%	0%	1%
Waikaia	Southland District	42%	33%	19%	3%	3%	0%	0%
Wallacetown	Southland District	26%	40%	24%	9%	0%	0%	1%
Winton	Southland District	33%	36%	17%	10%	1%	0%	2%
Woodlands	Southland District	25%	42%	19%	12%	0%	0%	1%
Wyndham	Southland District	32%	34%	21%	8%	1%	1%	3%

Note: Categories showing 0% may be marked so by Statistics New Zealand for confidentiality purposes, to protect the identity of individuals.

The educational opportunities at the tertiary level in Southland are strongly vocational-orientated, owing to the position of the Southland Institute of Technology (SIT) being the major tertiary provider in the region. Table 19 below shows the broad areas of study and number of enrolments in Southland in 2019. Enrolments in engineering and related technologies, and agriculture,

environmental and related studies were the most popular study areas for 2019. Agriculture was recorded as having 910 enrolments under the 'agriculture, environmental and related studies' category, the largest vocational sub-group. The 'engineering and related technologies' category features a broad range of sub-groups that are quite evenly represented, including general manufacturing and engineering, and automotive, mechanical, industrial and electrical engineering pathways. Within the 'architecture and building' category, building enrolments represented approximately 95 per cent of the 555 people who enrolled. Assuming a large proportion of students remain in Southland after they graduate, course enrolment reflects the reliance of primary and secondary industries within the Southland economy, as well as the existing opportunities within these industries to support livelihoods.

Table 19: Learners in Vocational Education and Training (VET) by Broad Field of Study in Southland, 2019. (Source: Ministry of Education)

Broad Field of Study	Southland Region
Natural and Physical Sciences	5
Information Technology	70
Engineering and Related Technologies	1,485
Architecture and Building	555
Agriculture, Environmental and Related Studies	1,325
Health	175
Education	80
Management and Commerce	560
Society and Culture	635
Creative Arts	200
Food, Hospitality and Personal Services	535
Mixed Field Programmes	120
Total	5,600

4.7 Schooling

Schooling statistics help support an understanding of demographic trends and access to educational opportunities for youth in Southland. Schools form an essential service for communities, acting as a central hub that often extends beyond educating the younger generations. In smaller communities, for instance, schools have facilities that are often used by the wider community. School halls, swimming pools, sports fields and their associated facilities are examples of the amenities used by local communities that support social connections, and mental and physical health. These can come in the form of increased social interaction, and the mental and physical benefits that these amenities provide not only for children, but for wider families and households. The educational benefits of schools relate to future employment, and subsequent income and wealth of people.

Table 20 shows trends in number of schools and school rolls for the Southland region in general, and then for three territorial authorities. It is important to note that over this time, government educational reforms in the mid-2000's resulted in a precipitous decline in the number of schools in the region, particularly in Invercargill City. In the 2000's, the nature of schooling systems shifted, where years 7-8 students were amalgamated into secondary school learning systems. This

generally reduced the number of pull-primary and intermediate schools (particularly in urban areas such as Invercargill).

Therefore, caution is required when looking specifically at the number of schools in the region. Simple associations between school numbers and population statistics are not advisable, as other external factors need to be considered. Some youth are also home-schooled. In 2020, there were 133 home-schooled youth in Southland.

Table 20: Number of schools and school rolls, by region and territorial authority, for Southland, 1996-2020. (Source: Ministry of Education)

Year	Southland Region		Southland District		Gore District		Invercargill City	
	Schools	School Rolls	Schools	School Rolls	Schools	School Rolls	Schools	School Rolls
1996	117	19105	57	5355	16	2573	44	11177
1997	115	19110	56	5471	15	2534	44	11105
1998	115	18943	56	5451	15	2480	44	11012
1999	108	18476	53	5319	14	2401	41	10756
2000	108	18154	53	5157	14	2355	41	10624
2001	107	17702	53	5064	14	2312	40	10326
2002	103	17680	49	5000	14	2308	40	10372
2003	102	17637	48	4933	14	2359	40	10345
2004	100	17394	46	4822	14	2356	40	10216
2005	89	17017	46	4677	14	2339	29	10001
2006	89	16857	46	4557	14	2350	29	9950
2007	89	16565	46	4463	14	2316	29	9786
2008	87	16294	44	4397	14	2240	29	9657
2009	86	16238	44	4399	13	2232	29	9607
2010	87	16152	44	4391	13	2225	30	9536
2011	87	16280	44	4365	13	2248	30	9667
2012	87	16137	44	4239	13	2207	30	9691
2013	86	16152	43	4246	13	2163	30	9743
2014	86	16224	43	4292	13	2162	30	9770
2015	85	16479	42	4384	13	2188	30	9907
2016	84	16611	42	4456	12	2165	30	9990
2017	84	16673	42	4497	12	2117	30	10059
2018	84	16754	42	4580	12	2103	30	10071
2019	83	16998	41	4637	12	2149	30	10212
2020	83	17019	41	4688	12	2144	30	10207

The number of schools and school rolls across the region show a general decline in student numbers from the mid-1990s to the early-2010s. Although not directly, these declines do mirror some of the general trends in population statistics evident in Southland from the mid-1980s to

the mid-2000s (Section 4.2.1). These declines reflect key historical trends and shocks in Southland (Section 3), and correspond to the wide-spread agricultural reforms and the decline in primary industries throughout the region.

More recently, school rolls have been increasing across the region in line with increasing migration and population trends (Section 4.2). Table 21 provides a breakdown of school types and how many school types have been operating over the last five Census years, providing more detail on the declining trend of school closures in Table 20. The increasing number of secondary schools that service Invercargill, compared to rural areas, highlights the importance of Invercargill as a major service centre for the entire region.

Table 21: School numbers, by category, across the Southland region and territorial authorities, 1996-2018. (Source: Ministry of Education)

Category			Year				
			1996	2001	2006	2013	2018
Primary	Full Primary	Gore District	3	3	3	3	3
		Invercargill City	12	12	6	6	6
		Southland District	31	29	26	24	24
		Southland Region	**46**	**44**	**35**	**33**	**33**
	Contributing	Gore District	10	8	8	7	6
		Invercargill City	21	18	16	16	16
		Southland District	20	18	14	13	12
		Southland Region	**51**	**44**	**38**	**36**	**34**
	Intermediate	Gore District	1	1	1	1	1
		Invercargill City	4	2	0	0	0
		Southland Region	**5**	**3**	**1**	**1**	**1**
Secondary	Secondary (Year 7-15)	Gore District	1	1	1	1	1
		Invercargill City	0	1	5	5	5
		Southland District	5	5	4	4	4
		Southland Region	**6**	**7**	**10**	**10**	**10**
	Secondary (Year 9-15)	Gore District	1	1	1	1	1
		Invercargill City	6	4	0	0	0
		Southland District	1	1	1	1	1
		Southland Region	**8**	**6**	**2**	**2**	**2**
	Teen Parent Unit	Invercargill City	0	0	0	1	1
		Southland Region	**0**	**0**	**0**	**1**	**1**
Composite	Restricted Composite (Year 7-10)	Invercargill City	0	1	0	0	0
		Southland Region	**0**	**1**	**0**	**0**	**0**
	Composite (Year 1-15)	Invercargill City	0	1	1	1	1
		Southland District	0	0	1	1	1
		Southland Region	**0**	**1**	**2**	**2**	**2**
Specialist	Specialist School	Invercargill City	1	1	1	1	1
		Southland Region	1	1	1	1	1

Early Childhood Education services are also an important aspect to consider, as they play a similar role in the community as primary and secondary institutions. Early childhood learning options fall into two main categories, teacher-led services and parent-led services. Table 22 shows the number of different types of early childhood services over time in Southland, with specific figures

for predominant individual services. Early childhood development helps develop young minds and supports families, underpinning future knowledge, skills, and social connections.

Table 22: Early Childhood Education services in Southland, 2002-2020. (Source: Ministry of Education)

Year	Licensed Services					Playgroups	
	Education and Care	Kindergarten	Kōhanga Reo	Playcentres	Licensed Services Total	Playgroups	Playgroups Total
2002	20	22	10	20	**78**	26	**28**
2003	23	22	10	19	**80**	28	**30**
2004	23	22	10	19	**80**	31	**34**
2005	25	22	10	20	**83**	32	**32**
2006	27	22	8	20	**83**	31	**33**
2007	29	21	8	19	**83**	29	**31**
2008	29	22	8	18	**83**	32	**35**
2009	29	22	8	18	**84**	32	**32**
2010	32	23	8	17	**89**	35	**37**
2011	35	23	8	17	**91**	34	**35**
2012	34	23	8	17	**91**	36	**37**
2013	36	23	8	17	**92**	36	**37**
2014	36	23	8	18	**95**	35	**35**
2015	36	23	8	17	**94**	37	**38**
2016	36	23	8	17	**93**	37	**38**
2017	38	23	8	17	**96**	38	**41**
2018	35	23	8	14	**88**	35	**37**
2019	36	23	8	14	**89**	32	**34**
2020	34	23	8	13	**86**	28	**29**

4.8 Households

Household-level statistical indicators provide understanding about quality-of-life, livelihoods, and well-being within societies. Housing quality and ownership statistics give an appreciation for the level of comfort and security families have, and how their physical and mental health may be affected at the household level.

Table 23 provides household ownership statistics in Southland, showing that the number of households has increased in most townships. The exception is some of the outlying towns, such as Balfour and Ohai, which have experienced negative growth between 2006 and 2018. Ohai's decline relates to the decline of the coal industry (Section 3), and Balfour's household decline reflects its general population decline (Section 4.2.1). Those townships that have experienced significant household growth are Oban, Te Anau and Lumsden, likely buoyed to some degree by tourism, property development and in the case of Lumsden, its proximity to destinations like Queenstown and Te Anau.

Table 23: Household change at the township level across Southland region, 2006-2018 Censuses. (Source: Market Economics, Stats NZ)

Township	Number of Households			Percentage Change in Number of Households		
	2006	2013	2018	2006-2013	2013-2018	2006-2018
Balfour	57	54	48	-5%	-11%	-16%
Bluff	771	798	783	4%	-2%	2%
Edendale	222	234	243	5%	4%	9%
Gore	3219	3252	3360	1%	3%	4%
Invercargill	17664	18615	19062	5%	2%	8%
Kennington	45	42	45	-7%	7%	0%
Lumsden	180	180	228	0%	27%	27%
Manapōuri	90	93	102	3%	10%	13%
Matāura	654	624	657	-5%	5%	0%
Mossburn	75	69	78	-8%	13%	4%
Nightcaps	132	138	138	5%	0%	5%
Oban	132	123	165	-7%	34%	25%
Ohai	132	120	117	-9%	-3%	-11%
Otautau	291	306	318	5%	4%	9%
Riversdale	159	168	168	6%	0%	6%
Riverton	648	675	699	4%	4%	8%
Te Anau	723	846	981	17%	16%	36%
Tuatapere	237	249	240	5%	-4%	1%
Waikaia	60	63	60	5%	-5%	0%
Wallacetown	231	246	270	6%	10%	17%
Winton	912	957	1017	5%	6%	12%
Woodlands	111	111	111	0%	0%	0%
Wyndham	213	228	234	7%	3%	10%

Household ownership provides insight into the level of security that people in the Southland region have for access to shelter, and to support family. There are also links through to elements of mental and spiritual well-being, as comfort and security that household ownership brings can help support psychological states. The societal value placed on individual home ownership and securing that space and comfort for family and friends is important for New Zealanders, often described in national media as the 'Kiwi dream' (Street, 2008; Anderson, 2017; Goodall, 2017; The Project, 2019; and Vance, 2020). This can affect how people are viewed in communities. Figure 11 provides a comparison of home ownership between New Zealand overall and Southland.

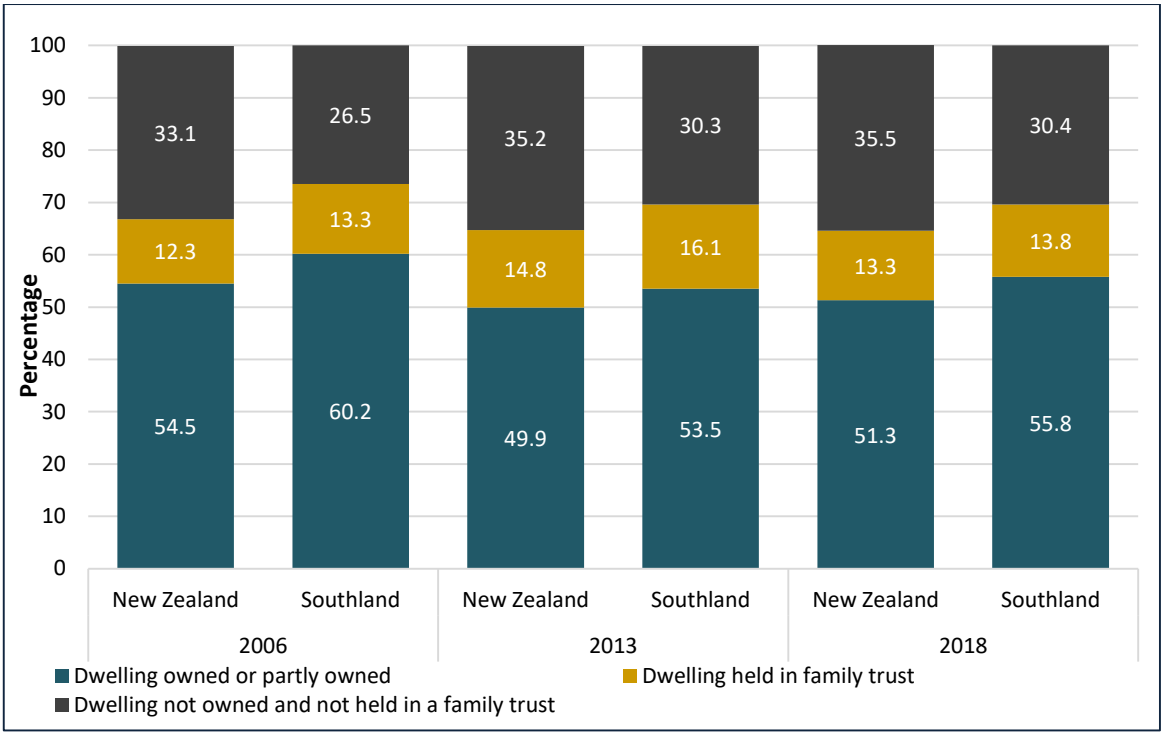

Figure 11: Household ownership percentages in the Southland region and New Zealand, 2006-2018 Censuses. (Source: Stats NZ)

Although Southland rates of home ownership are higher than national percentages, there has been a decrease in home ownership between 2006 and 2018. The decrease in home ownership could be attributed to many factors. Looking specifically at house prices as a possible reason, there was a sharp increase in prices both in Southland and New Zealand overall between 2018 and 2021. Realestate.co.nz's (Taylor, 2018; Wood, 2021) monthly property reports for May 2018 and March 2021 show that average asking prices have increased from $300,077 to $450,519 in Southland, where in New Zealand the average has increased from $648,218 to $834,769. While these figures are average sale prices and require caution in how they should be used, they do provide a sense of the decreasing home ownership patterns being seen across New Zealand. Continued price increases may lead to further decreases in home ownership in future.

Statistics on median weekly rents from the last three Censuses also show increases over time (Table 24). From 2006 to 2018, Southland's median weekly rent increased approximately 53.8 per cent, as opposed to an approximate 70 per cent increase nationally. Compared to the rest of New Zealand, the Southland region still remains a relatively affordable region to live in. Lower housing costs also align favourably with a larger portion of lower wage earners in the region and a higher prevalence of lower-skilled jobs (Sections 4.4 and 4.5).

Table 24: Median weekly rent paid by households in Southland Region and New Zealand, 2006-2018 Censuses. (Source: Stats NZ)

Year	Southland	New Zealand
2006	130	200
2013	180	280
2018	200	340

Housing condition provides further insights into housing and health. Figure 12 shows the different forms of heating usually used in homes in Southland and New Zealand. The figures below show a higher use of heating in Southland, approximately 168.9 per cent of responses and 0.5 per cent indicating no heating used, compared the rest of the country, approximately 146.9 per cent of responses and 4 per cent indicating no heating used. Southland, according to Census statistics, has a higher reliance on wood and coal burners that the rest of the country. A higher use of heating, specifically wood and coal, could potentially link to other health and environmental issues for the region, as well as high electricity costs.

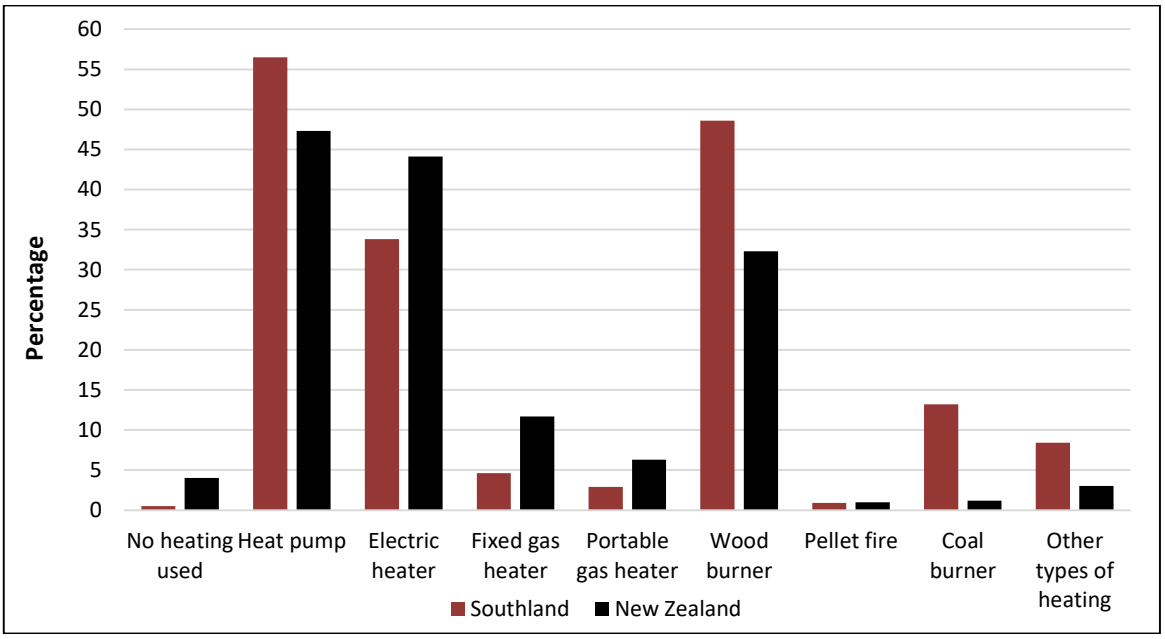

Figure 12: Main forms of heating usually used within dwellings for Southland region and New Zealand, 2018 Census. (Source: Stats NZ)

Statistics New Zealand's General Social Survey provides information on how cold respondents feel their dwellings are in winter (Table 25). While the sampling error rates for Southland are high, respondents from Southland stated they considered their dwellings remained relatively warm throughout winter months than responses from other parts of New Zealand. Only a low percentage of respondent's stated that they are always or often cold during winter, which remained consistent across survey years.

Table 25: House or flat colder than would like in winter, General Social Survey 2014-2018. (Source: Stats NZ)

Category	Southland (%)			New Zealand (%)		
	2014	2016	2018	2014	2016	2018
Yes – always or often	14.9	14.1	14.5	21.2	21	22.1
Yes – sometimes	21.2	26.2	29.7	26.8	27.5	30.4
No	63.9	59.7	55.7	52.1	51.5	47.4

Note: ASE percentage point estimates for Southland results range from 5.2 to 9.5 per cent. New Zealand ASE percentage point estimates range from 1.2 to 1.7 per cent.

2018 Census contains information on dampness and mould among households (Table 26), and shows that overall, Southland housing has less damp and mould than the rest of the country. Statistics that support notions of warm, dry, and less mouldy housing stock suggest that housing quality is better in Southland than New Zealand in general.

Table 26: Dampness and mould indicator percentages for Southland region and New Zealand, 2018 Census. (Source: Stats NZ)

Category		Southland (%)	New Zealand (%)
Dampness indicator	Not damp	81.7	78.5
	Sometimes damp	16.3	18.5
	Always damp	2	3
Mould indicator	No mould/mould smaller than A4 size	87.1	83.1
	Mould over A4 size - sometimes	9.9	12.6
	Mould over A4 size - always	3	4.3

Access to communication technologies provide a range of benefits and conveniences, from connecting with family and friends to having the ability to run businesses and gain access to materials, supplies and goods remotely. Having access supports a wide range of capabilities and assets people have, from emotional and social connectivity to possible economic benefits, such as business opportunities and the ability to work remotely. Overall, Southland statistics are comparable in most categories to New Zealand, except for the slightly lower percentage of access to the internet (Figure 13).

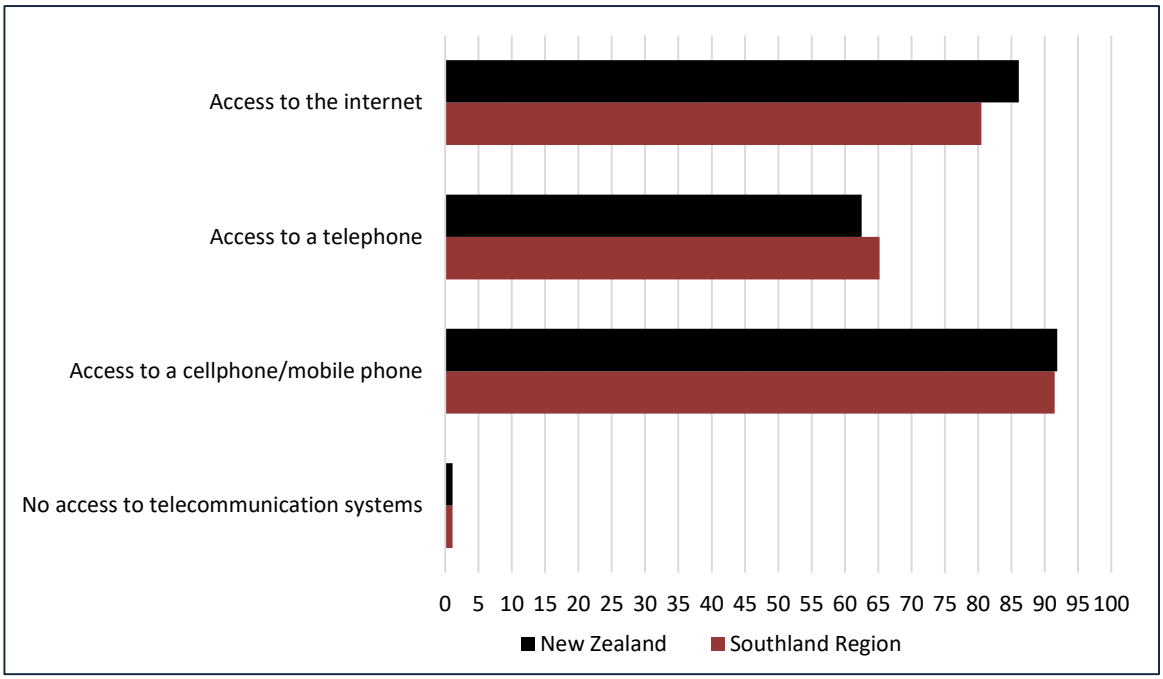

Figure 13: Household access to telecommunication systems in Southland region and New Zealand, 2018 Census. (Source: Stats NZ)

Telecommunication access at the township level (Table 27) shows those areas in Southland where access may be more difficult than others. There could be many reasons for a lack of internet access. In Southland, it could relate to more rural-based and remote populations (and therefore potential servicing issues), an ageing population (ability to want or use technology), and/or issues related to affordability. Towns such as Nightcaps, Ohai, Tuatapere and Matāura, which are experiencing employment challenges and have lower incomes among residents, also have a higher number of households without access to the internet. Ohai and Waikaia report the highest percentage of 'no access' across all Southland towns.

Table 27: Household telecommunication access by township for Southland region, 2018 Census. (Source: Market Economics, Stats NZ)

Township	Territorial Authority	Percentage of Households (Rounded %)			
		No Access	Access to Landline	Access to Mobile/Cell	Access to Internet
Balfour	Southland District	0	63	88	81
Bluff	Invercargill City	1	63	81	65
Edendale	Southland District	1	63	89	75
Gore	Gore District	1	67	85	74
Invercargill	Invercargill City	1	60	86	76
Kennington	Invercargill City	0	60	93	73
Lumsden	Southland District	1	42	68	53
Manapōuri	Southland District	3	59	82	76
Matāura	Gore District	4	56	81	67
Mossburn	Southland District	0	65	88	77
Nightcaps	Southland District	2	48	80	57

Township	Territorial Authority	Percentage of Households (Rounded %)			
		No Access	Access to Landline	Access to Mobile/Cell	Access to Internet
Oban	Southland District	0	53	75	74
Ohai	Southland District	8	38	72	46
Otautau	Southland District	1	53	85	70
Riversdale	Southland District	2	59	93	79
Riverton	Southland District	3	54	85	70
Te Anau	Southland District	2	55	87	80
Tuatapere	Southland District	1	56	85	63
Waikaia	Southland District	5	75	80	75
Wallacetown	Southland District	0	68	92	86
Winton	Southland District	1	69	87	76
Woodlands	Southland District	0	57	92	76
Wyndham	Southland District	3	62	82	69

4.9 Social deprivation

This section looks at deprivation. Deprivation refers to a lack of different necessities and materials within society. It is used transversely at individual, familial and community levels to describe where the lack of access to goods and services, and various support structures may be. Understanding the relative deprivation of specific services, goods and materials is helpful in visualising how a broader region or community functions. This information provides strategic insight for future planning and support measures that a community may need to limit deprivation and improve quality-of-life and well-being moving forward. Deprivation in this sense is not only related to tangible, physical things, but also the social and mental aspects of life that may be deficient. Exploring social and socio-economic indicators that provide useful national and regional data can reveal such inequalities and prove invaluable when assessing social trends and impacts.

Understanding of social deprivation through relevant Census indicators has been undertaken by the University of Otago (see Atkinson *et al.*, 2019), to highlight spatially some of the most socially at-risk areas in the country. Known as the Index for Socioeconomic Deprivation (NZDep), this work was first developed in 1994 and continues to utilise the most recent Census to identify key 'dimensions' and give a 'deprivation score'. These 'dimensions' change over time and are based on Census questions. For NZDep2018, deprivation scores were premised on eight key dimensions of deprivation; communication access, income, employment, qualifications, home ownership, support, living conditions and living space (Atkinson *et al.*, 2019). A scale system is applied to Statistics New Zealand's Statistical Areas (SA), where a 1-10 scale posits areas that are least (1), or most (10) deprived. This scale is developed by dividing all SA scores into tenth percentiles, whereby those areas that receive a score of 10 represent the most deprived 10 per cent of all SA's across New Zealand (Atkinson *et al.*, 2019). Figure 14 provides a mapped example of the NZDep2018 for Invercargill City and the surrounding city hinterland (SA1 level).

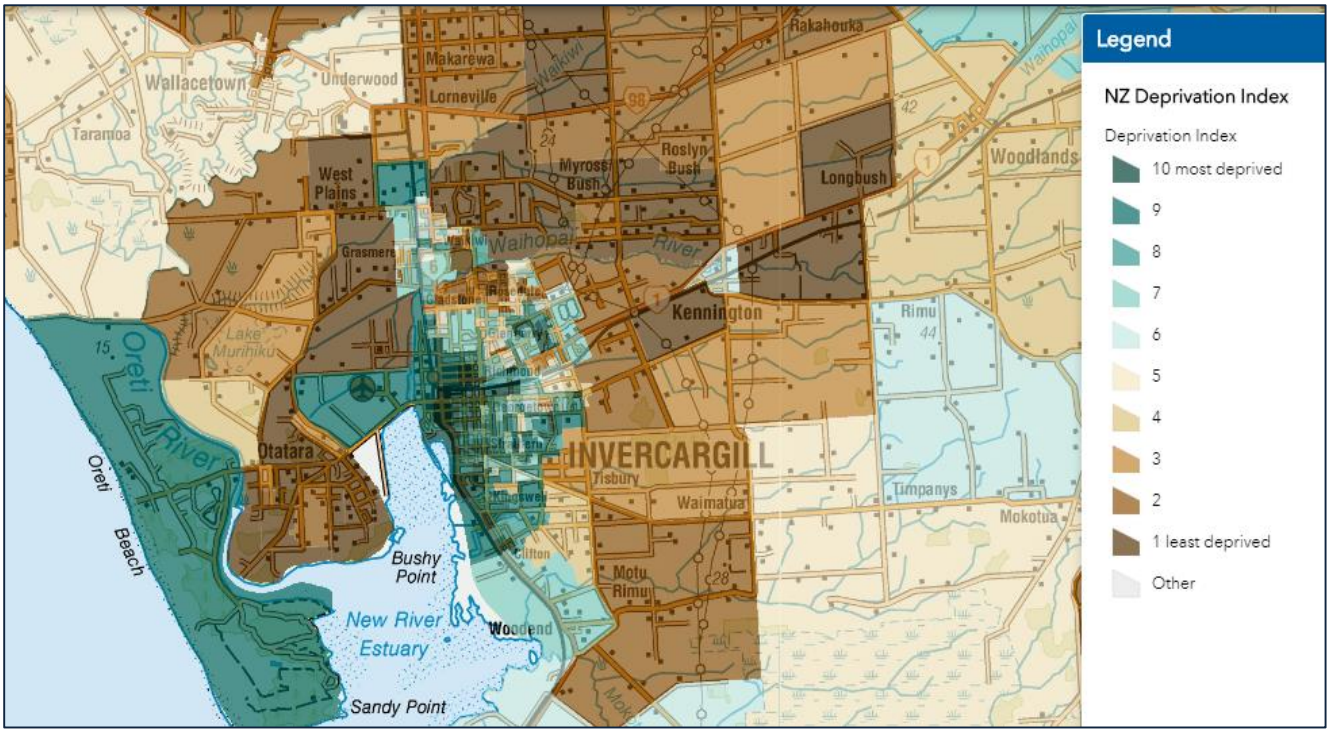

Figure 14: NZDep2018 for Invercargill City, applied through Statistics New Zealand's SA1 level. (Source: Environment Southland, 2020)

NZDep2018 scores at Statistics New Zealand's SA2 level for the Southland region (Table 28) provides understanding of certain social discrepancies at a regional scale.

Table 28: NZDep2018 scores at SA2 level for Southland region. (Source: Environment Southland, 2020)

Statistical Area 2 Name	NZDep2018 Score	Statistical Area 2 Name	NZDep2018 Score
Aurora	9	Avenal	7
Awarua Plains	4	Bluff	8
Clifton	9	Crinan	10
Donovan Park	4	East Gore	8
Edendale-Woodlands	4	Elizabeth Park	9
Fiordland	N/A	Georgetown	9
Gladstone (Invercargill City)	2	Glengarry	9
Gore Central	8	Gore Main	6
Gore North	4	Gore South	8
Gore West	5	Grove Bush	1
Hargest	3	Hedgehope	4
Invercargill Central	10	Kennington-Tisbury	2
Kew (Invercargill City)	10	Kingswell	8
Longwood Forest	7	Lumsden-Balfour	4
Mararoa	3	Matāura	9
Mossburn	5	Moulson	9
Myross Bush	1	Newfield	7

Statistical Area 2 Name	NZDep2018 Score	Statistical Area 2 Name	NZDep2018 Score
Ohai-Nightcaps	8	Ōreti River	3
Otatara	1	Otautau	6
Prestonville-Grasmere	6	Richmond (Invercargill City)	6
Riversdale-Piano Flat	4	Riverton	7
Rosedale	1	Stewart Island	4
Strathern	9	Te Anau	3
Turnbull Thompson Park	6	Waianiwa	2
Waikaka	3	Waimumu-Kaiwera	3
Wallacetown	3	West Plains-Makarewa	3
Whitestone	1	Windsor	6
Winton	5	Woodend-Greenhills	6
Wyndham-Catlins	6		

There are clear geographical patterns and divides for areas that sit within the highest 20 per cent of deprivation across New Zealand. The 11 Southland SA2 layers that rank a 9 or a 10 on the deprivation scale all lie within urban centres. Only one, Matāura, is outside of Invercargill City. The locations of the ten deprived Invercargill areas are predominantly in the Southern and South Eastern parts of the city. These areas also have lower median ages than other parts of the region (Section 4.2.1). Northern parts of the city, alongside peripheral semi-rural areas, represent a high proportion of those layers considered to be the least deprived. The majority of rural SA2 areas, therefore, sit within the lower deprivation rankings. Layers that include townships (such as Ohai-Nightcaps, Matāura and Riverton, for example) show higher rates of deprivation. From a distributional sense, Table 29 below shows how the 60 SA2 areas of Southland are represented on the deprivation scale. Overall, Southland has townships along the deprivation scale.

Table 29: Distributional percentages of SA2 areas within the Southland region. (Source: Environment Southland, 2020)

NZDep2018 Score	Number of SA2 Southland Areas	Percentage	NZDep2018 Score	Number of SA2 Southland Areas	Percentage
N/A	4	6.6	6	8	13.3
1	5	8.3	7	4	6.6
2	3	5	8	6	10
3	8	13.3	9	8	13.3
4	8	13.3	10	3	5
5	3	5			

Data from Statistics New Zealand's General Social Survey can also be used to assess deprivation. It provides complimentary information on individual understanding and perception around what deprivation could mean for people, and how people manage deprivation both individually and as a household. In this survey, respondents talk to their specific situations and reflect on what truly matters for them, how their livelihoods playout, and how their overall quality-of-life is influenced by various factors.

One fiscal-orientated question in the General Social Survey asks respondents to reflect on how their income supports their ability to meet everyday needs (Figure 15). While their needs are not

specified, this information does provide some sense as to how financially comfortable respondents are. Figure 15 below compares Southland to New Zealand, showing that Southland responses to having enough money are higher than they are nationally. Caution is needed when interpreting results for Southland, however, due to the high error rates in the data.

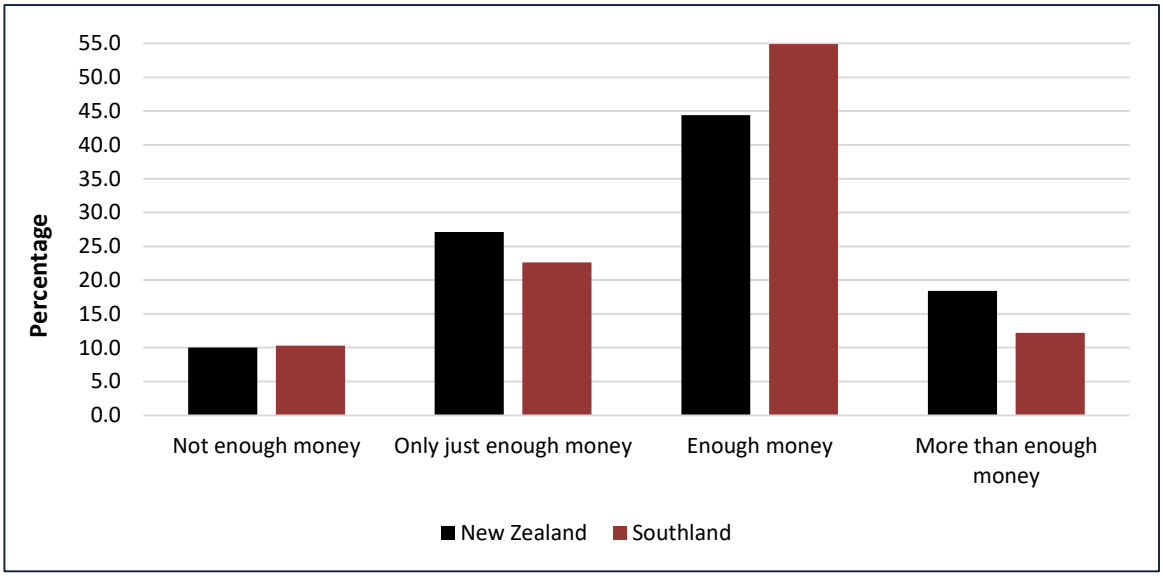

Figure 15: Adequacy of income to meet everyday needs, 2018 General Social Survey. (Source: Stats NZ)

Note: ASE percentage point estimates for Southland results range from 6.2 to 10.9 per cent. New Zealand ASE percentage point estimates range from 0.8 to 1.6 per cent.

There are some questions in the General Social Survey, however, that can be used to show Southland trends. The General Social Survey asks respondents to consider their financial limitations when buying goods for themselves, and possibly buying goods in the near future at a fixed monetary sum (Table 30).

Table 30: Financial limitation percentages for various scenarios for the Southland region, General Social Survey 2014-2018. (Source: Stats NZ)

Category		2014	2016	2018
How limited by money when buying, or thinking about buying, clothes or shoes for yourself	Not at All Limited	34.5	28.9	27.2
	A Little Limited	42.3	40.5	41.8
	Quite Limited	16	18.6	17.6
	Very Limited	7.2	12	13.3
How limited when buying a $300 item in the next month	Not at all Limited	29.6	24.6	18.8
	A Little Limited	26.3	20.7	21.7
	Quite Limited	15.6	8.5	16.2
	Very Limited	10.2	15.4	16.5
	Couldn't Buy It	18.2	30.9	26.9

Note: ASE percentage point estimates for Southland results range from 3 to 7.2 per cent.

Respondents in Southland being limited or unable to afford such things increased between 2014 to 2018, while the percentage of respondents being not at all limited has decreased. This suggests that financial challenges may have risen over time for a portion of Southland's population. Patterns of increasing rent and housing prices (Section 4.8) suggests that costs of living in Southland is rising, which could compound on an individual's financial position and perspective (in particular their income and wealth). Caution is again needed when interpreting this table, due to data error rates.

Material standards of living can also support knowledge of deprivation and how people perceive their quality-of-life. **Figure 16** shows how material standards of living are perceived in Southland. The general trend over time that shows that Southlanders have become more restricted in their material standard of living between 2014 and 2018. However, care must be taken with the metrics used below, as the changes could be attributed to simple lifestyle changes rather than circumstances of deprivation. High data error rates once again need to be considered, and caution applied, when interpreting these results.

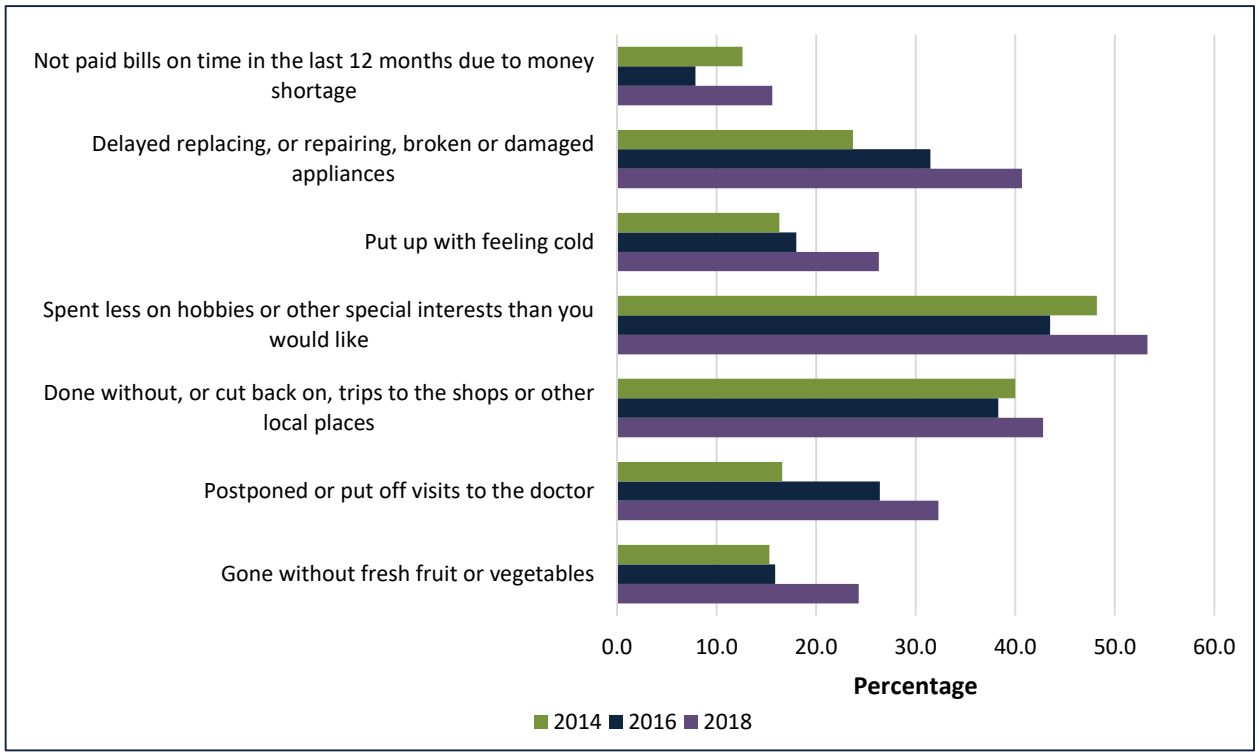

Figure 16: Actions taken to keep costs down over the last twelve months in Southland region, General Social Survey, 2014-2018. (Source: Stats NZ)

Note: ASE percentage point estimates for Southland results range from 4.6 to 12.6 per cent.

4.10 Social issues

Social indicators that reflect negative traits and challenges within societies are valuable in assessing how communities' function, and how individuals and communities reflect on their overall quality-of-life. The indicators in this section can be used to show how individuals experience their local environments and their wider communities, and how comfortable their lifestyles and living spaces are.

Crime indicators are explored within the General Social Survey. For instance, respondents were asked the perceived level of fear they hold in relation to crime and the effect it has on their life (Figure 17). The lower the score, the less fear and effect crime is considered to have on one's life.

Overall, the mean ratings for Southland were lower that for the nation, sitting at 2.5 as opposed to 3.3 overall. Figure 17 supports this, but caution is required when using this data as the error rates are high. The mean figures above have lower error rates, however, and can be used with more certainty to say that crime may be less of an issue to people in Southland than for New Zealand overall.

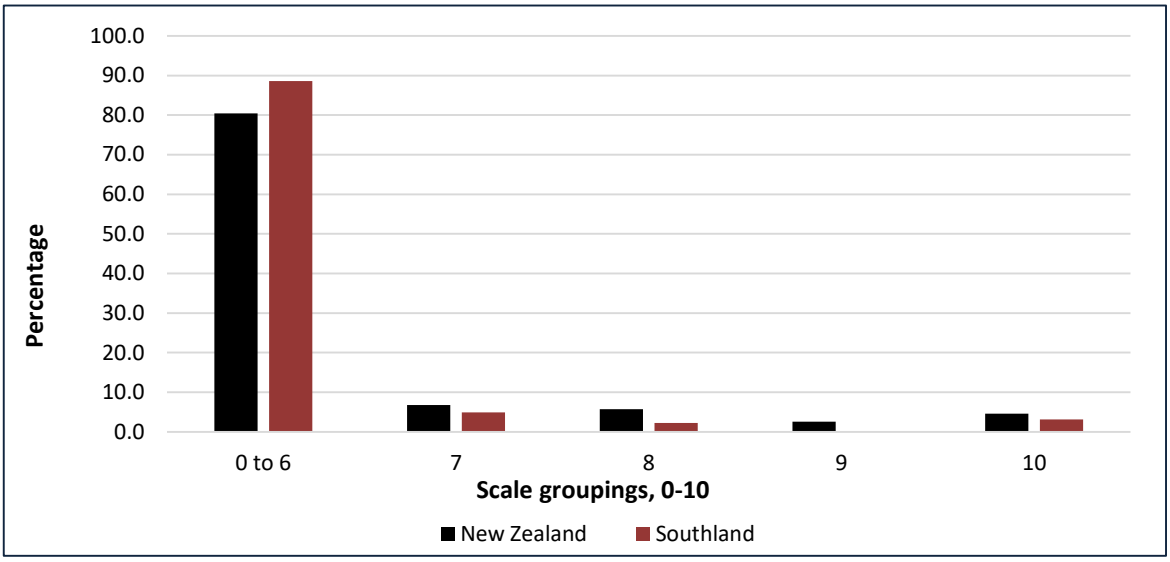

Figure 17: Fear of crime and its effect on life for Southland region and New Zealand, 2018 General Social Survey. (Source: Stats NZ)

Note: ASE percentage point estimates for Southland results range from 1.8 to 4.5 per cent. New Zealand ASE percentage point estimates range from 0.4 to 1.2 per cent. Results for Southland scale grouping 9 is S (Suppressed).

Respondents were also asked in the General Social Survey to reflect on their experiences with neighbourhood problems over the previous 12 months from answering the survey. The presented categories cover elements of criminal behaviour, to general social behaviours that are likely to be considered negative or unwanted within society (Table 31). The data in Table 31 shows that both Southland and New Zealand report a decline in responses to 'no neighbourhood problems', and an increase of negative experiences across all reported categories. Concerns in Southland are lower in general than national percentages for most categories, with the exception of dangerous driving and drug/alcohol abuse which has increased in the 2018 survey. Caution is again required when interpreting Southland data because of high error rates and limited regional representation in the data.

Table 31: Neighbourhood problem percentages over the last twelve months for Southland region and New Zealand, 2014-2018 General Social Survey. (Source: Stats NZ)

Category	Southland			New Zealand		
	2014	2016	2018	2014	2016	2018
Noise/Vandalism	21.7	26.6	30.4	31.8	32.1	35.4
Burglary/Assault	9.1	16.9	16.6	19.0	22.5	20.4
Drugs/Alcohol Abuse	10.6	12.7	22.4	17.2	18.0	18.5
Dangerous Driving	19.1	27.3	30.5	25.1	27.3	28.6

Category	Southland			New Zealand		
	2014	2016	2018	2014	2016	2018
No Neighbourhood Problems	61.5	51.4	43.7	47.2	45.2	42.4

Note: ASE percentage point estimates for Southland results range from 4.2 to 9.8 per cent. New Zealand ASE percentage point estimates range from 1.2 to 1.6 per cent.

Crime statistics from the New Zealand Police (New Zealand Police, 2021) provide another data source for aspects of personal security (Table 32). This data aligns to the General Social Survey data) on various reported crime victimisations across Southland (at Territorial Authority level) and for New Zealand. Burglary and assault statistics differ to the perceptions of neighbourhood problems presented in Table 31. Police statistics for the whole Southland region show a decline in reported assaults, sexual assaults and burglaries. In general, the total number of reported crimes in the region over this three-year period declined slightly. Comparisons between Southland and New Zealand reveal differences in assault and sexual assault reports, which rose nationally but dropped in Southland. However, while national robbery rates have declined, Southland's robbery rates have increased. It is important to note, however, there are low reported robbery rates in Southland in general.

Table 32: Reported crime victimisations for Southland region and New Zealand, 2016 and 2018. (Source: New Zealand Police, 2021)

Category	Area	Assault	Sexual Assault	Abduction	Robbery	Burglary	Theft	Total
2016	Invercargill City	298	28	1	13	677	800	1817
	Gore District	36	6	0	2	139	155	338
	Southland District	47	12	0	2	369	305	735
	Southland	**381**	**46**	**1**	**17**	**1185**	**1260**	**2890**
	New Zealand	**21111**	**2065**	**224**	**3382**	**71523**	**122136**	**220441**
2018	Invercargill City	270	24	3	16	678	975	1966
	Gore District	43	1	0	2	113	139	298
	Southland District	54	12	0	1	299	227	593
	Southland	**367**	**37**	**3**	**19**	**1090**	**1341**	**2857**
	New Zealand	**22038**	**2207**	**254**	**2919**	**64502**	**125377**	**217297**
Percentage Change 2016-2018	Invercargill City	-9.4%	-14.2%	200.0%	23.0%	0.2%	21.9%	8.20%
	Gore District	19.4%	-83.3%	0.0%	0.0%	-18.7%	-10.3%	-11.83%
	Southland District	14.9%	0.0%	0.0%	-50.0%	-19.0%	-25.6%	-19.3%
	Southland	**-3.7%**	**-19.6%**	**200.0%**	**11.8%**	**-8.0%**	**6.4%**	**-1.1%**
	New Zealand	**4.4%**	**6.9%**	**13.4%**	**-13.7%**	**-9.8%**	**2.7%**	**-1.4%**

The perception of one's own personal safety within a neighbourhood and community is also important in terms of social security. Table 33 shows how safe people perceive themselves to be when they are doing particular activities. This information is complimentary to the above crime indicators as it provides a sense of how comfortable and fearful people may feel in their community. There are trends in this data, when compared to other data in this section, show the perception of safety within the region has declined over time. Caution is once again required when interpreting this data set, however, due to the high error rates inherent within the data.

Table 33: Safety and security percentage reflections for Southland region, 2014-2018 General Social Survey. (Source: Stats NZ)

Category	Very Safe/Safe Percentage Responses		
	2014	2016	2018
Walking Alone in the Neighbourhood After Dark	75.4	64.4	63
At Home by Yourself at Night	90.1	83.2	86.6
Using the Internet for Online Transactions	73.8	78.7	65.2

Note: ASE percentage point estimates for Southland results range from 3.5 to 11.2 per cent.

4.11 Trust and social capital

Notions of social capital; the norms, networks and trust that actors build at both individual, household and community levels, are important aspects of quality-of-life. Social capital considers the relationships that people hold, and how those interactions and engagements between people, households and communities provide both tangible and subjective benefits, including the mental and spiritual benefits that make individuals feel positive or negative about their overall life. Perception is important when considering the more subjective elements of social capital and particularly of trust. Using qualitative data from the Census and the General Social Survey can provide insights on high-level community views about trust and social capital.

Census has information on unpaid activities both internal and external to the household (

Table 34). Forms of unpaid activities cover the more traditional aspects of unpaid work that support households, such as parental care. They also extend to notions of volunteering and care support outside of direct family household structures to the wider community. Volunteering reflects notions of social capital beyond the bonded, familial forms of household norms and connections. It shows bridging social capital, providing support and connectivity among actors in the community. Volunteering can be driven through forms of altruism, or individual desire and ambition, providing benefits to both the volunteer and the recipient (McLachlan, 2018).

Table 34: Unpaid activities and voluntary commitments by township for Southland region, 2006-2018 Censuses. (Source: Market Economics, Stats NZ)

Township	Number of Residents, 2018 Census					
	Household chores	Looking After a Child Who Lives in Own Household	Helping Someone Who is Ill or Has a Disability Who Lives in Own Household	Looking After a Child Who Does Not Live in Own Household	Helping Someone Who is Ill or Has a Disability Who Does Not Live in Own Household	Other Helping or Voluntary Work for or Through Any Organisation, Group or Marae
Balfour	66	18	6	15	3	15
Bluff	990	279	99	192	123	195
Edendale	366	123	30	87	45	111
Gore	4767	1401	402	876	552	960
Invercargill	28062	9204	2433	5820	3198	5013
Kennington	66	24	3	18	12	15
Lumsden	270	93	27	60	36	69
Manapōuri	150	18	18	24	12	33
Matāura	855	249	93	222	99	168
Mossburn	117	33	6	24	15	24
Nightcaps	171	33	21	33	15	33
Oban	219	36	9	33	18	90
Ohai	135	33	12	24	18	27
Otautau	426	135	45	81	54	111
Riversdale	246	81	21	48	15	66
Riverton	948	240	69	198	144	261
Te Anau	1557	465	90	255	123	333
Tuatapere	336	72	27	66	45	90
Waikaia	81	18	3	12	9	21
Wallacetown	456	171	39	87	39	75
Winton	1458	417	108	267	165	324
Woodlands	180	51	15	18	18	30
Wyndham	318	108	33	60	39	72

Table 35 shows the percentage change in volunteering activity across time, townships, and types of activities. There has been a decline in voluntary and unpaid activities in the townships of Ohai, Bluff, Gore, and Riversdale, while there has been an increase in Wallacetown, Winton, and Te Anau.

Table 35: Percentage change of unpaid activities and voluntary commitments by township for Southland region, 2006-2018 Censuses. (Source: Market Economics, Stats NZ)

Township	Household Chores	Looking After a Child who Lives in Own Household	Helping Someone Who is Ill or Has a Disability Who Lives in Own Household	Looking After a Child Who Does Not Live in Own Household	Helping Someone Who is Ill or Has a Disability Who Does Not Live in Own Household	Other Helping or Voluntary Work for or Through Any Organisation, Group or Marae
	2006 to 2018	2006 to 2018	2006 to 2018	2006 to 2018	2006 to 2018	2006 to 2018
Balfour	-21%	-45%	0%	0%	-67%	-44%
Bluff	-7%	-18%	-11%	-21%	-9%	-7%
Edendale	11%	17%	25%	26%	36%	23%
Gore	-2%	-15%	-11%	-13%	-3%	-5%
Invercargill	1%	-8%	-11%	-8%	-3%	1%
Kennington	-12%	-20%	0%	100%	100%	67%
Lumsden	7%	0%	13%	25%	50%	0%
Manapōuri	-12%	-67%	100%	0%	0%	0%
Matāura	-5%	-29%	-6%	12%	-6%	14%
Mossburn	5%	-31%	-33%	33%	67%	-33%
Nightcaps	-3%	-39%	17%	-8%	-29%	-27%
Oban	6%	-14%	0%	-21%	-14%	15%
Ohai	-22%	-52%	-33%	-47%	-25%	-53%
Otautau	-8%	-24%	-6%	-27%	20%	-5%
Riversdale	-1%	-16%	17%	-6%	-50%	-4%
Riverton	-1%	-24%	-21%	-6%	4%	7%
Te Anau	25%	21%	7%	23%	11%	28%
Tuatapere	-6%	-45%	13%	-21%	36%	-3%
Waikaia	-7%	50%	0%	-33%	-25%	0%
Wallacetown	17%	6%	44%	12%	63%	14%
Winton	7%	19%	3%	14%	38%	15%
Woodlands	-2%	0%	0%	-40%	-14%	11%
Wyndham	0%	-3%	-8%	-26%	-7%	-11%

Data on face-to-face contact within the General Social Survey helps build upon notions of family support and overall familial and friend connectivity among individuals (Figure 18). People in the Southland region appear to have more face-to-face contact with others than nationally. Below presents information on reported contact time between respondents and their family and friends, specified between remote or face-to-face contact. Caution is, however, required when interpreting Southland data because of high error rates. The higher familial statistics may reflect a higher likelihood family members remain in the same location more so in Southland than other parts of New Zealand. It may also reflect the value Southlanders place on family communication and connectivity for their well-being.

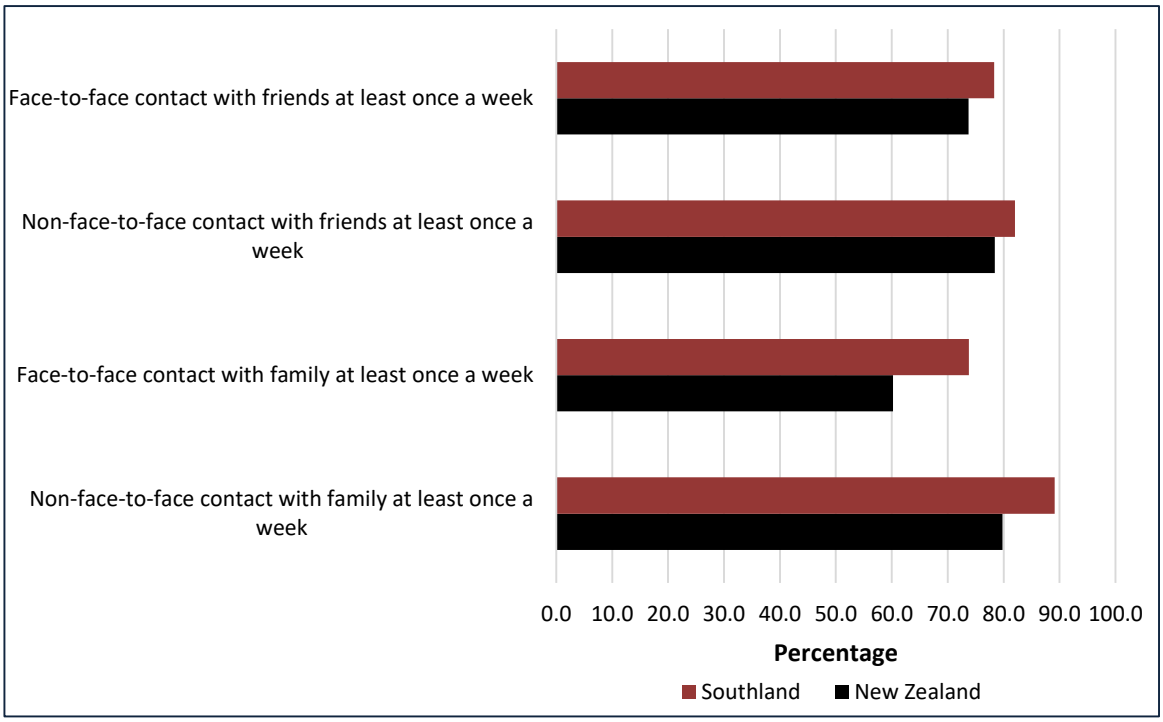

Figure 18: Social contact with family and friends for Southland region and New Zealand, 2018 General Social Survey. (Source: Stats NZ)

Note: ASE percentage point estimates for Southland results range from 3.2 to 7.0 per cent. New Zealand ASE percentage point estimates range from 1.1 to 1.5 per cent.

Results from the *Community Values for Southland's Freshwater Management Units* report (Wilson *et al.*, 2019) show the value placed on familial connections, specifically in the context of freshwater management and the wider Southland environment. When confirming values for freshwater through community engagement, the value 'community well-being and connectedness' was identified and subsequently added to the overall values package of the PWL programme. Within 'community well-being and connectedness', there was a resounding response to the importance of familial connectivity. The theme 'family importance/children' was raised by 120 respondents across a total of 1,026 overall survey responses (approximately 11.7 per cent). This was the eighth most-discussed theme out of the 105 various themes identified for the 20 community values for freshwater, as part of the Values and Objectives workstream (Wilson *et al.*, 2019). This helps demonstrate that family connectivity is valued among Southland residents.

Loneliness also relates to social connections and subjective well-being. Questions from the General Social Survey explore understandings of loneliness (

Table 36). In Southland, there is a relative trend towards increasing instances of reported loneliness, when looking at the decrease in ‘none of the time’ and the rise in ‘some of the time’ and ‘most/all of the time’ categories. Caution, however, must be used when interpreting this data because of high data error rates.

Table 36: Loneliness perception over last four week period for Southland region and New Zealand, 2014-2018 General Social Survey. (Source: Stats NZ)

Category	Southland			New Zealand		
	2014	2016	2018	2014	2016	2018
None of the Time	71.1	58.8	63.0	63.9	60.2	61.0
A Little of the Time	15.9	22.6	21.6	22.2	22.9	22.4
Some of the Time	9.0	10.8	10.5	10.3	10.6	13.1
Most/All of the Time	4.0	7.9	4.9	3.6	6.3	3.5

Note: ASE percentage point estimates for Southland results range from 3.2 to 8.0 per cent. New Zealand ASE percentage point estimates range from 0.4 to 1.3 per cent.

Trust, another aspect of social capital, is also a feature of the 2018 General Social Survey. On a scale of 1 to 10, the trust held for people sat at 6.5 for Southland, while the overall national mean rating sat at 6.8 (10 being the most trust and 1 being the least). There were smaller ASE error rates for this data, 0.3 for Southland and 0.1 for New Zealand.

Perceptions of trust in relation to established institutions and services that operate across the national level show there is the lowest trust in the Media and Parliament for Southland and New Zealand (Table 37). Trust in the Police has the highest mean rating, remaining relatively consistent across survey years. For Southland, the perceived level of trust in the education and health systems are lower than national averages. The cause for this is not clear, but an aspect of it could relate to the lower number of highly-educated people in the region, and the overall higher percentage of individuals within Southland who have no formal qualifications (Section 4.6). More work is required to confirm how trust relates to other social indicators. While there are smaller error rates in this data, caution is still required in its interpretation because of error rates and representational issues in the Southland data.

Table 37: Mean institutional trust ratings for Southland region and New Zealand, 2014-2018 General Social Surveys. (Source: Stats NZ)

Category	Southland Mean Rating			New Zealand Mean Rating		
	2014	2016	2018	2014	2016	2018
Trust Held for the Courts	7.1	6.3	6.8	6.7	6.8	6.9
Trust Held for the Education System	6.8	6.5	6.6	7.0	7.0	7.0
Trust Held for the Health System	6.7	5.9	6.3	7.0	7.0	6.9
Trust Held for the Media	4.7	4.0	4.7	4.9	4.8	4.9
Trust held for Parliament	5.1	4.6	5.4	5.3	5.4	5.7
Trust Held for the Police	7.7	7.4	7.7	7.7	7.8	7.9

Note: ASE percentage point estimates for Southland results range from 0.3 to 0.5 per cent. New Zealand ASE percentage point estimates are 0.1 per cent.

4.12 Health and well-being

Health, and perceptions of health, extend from physical ailments and difficulties to include mental and spiritual health. Mental and physical health issues greatly affect people's ability to support their lives and can impact their overall well-being state. Southland-specific health data can be difficult to obtain as the Southern DHB data encompasses the Southland and Otago regions (Figure **1**). While there are many health statistics that could be reported, only those thought to be most relevant to understanding the social profile of the region are included.

Figure 19 shows the self-rated general health status of respondents in Southland and New Zealand overall from the 2018 General Social Survey. It should be noted that this is perceived health and could cover diagnosed ailments and disabilities, as well as undiagnosed or only briefly experienced health issues. The data shows that Southland has a slightly higher percentage of poor health perception than that of New Zealand. Caution is required with the interpretation of this data, however, due to the high error rates in the Southland data.

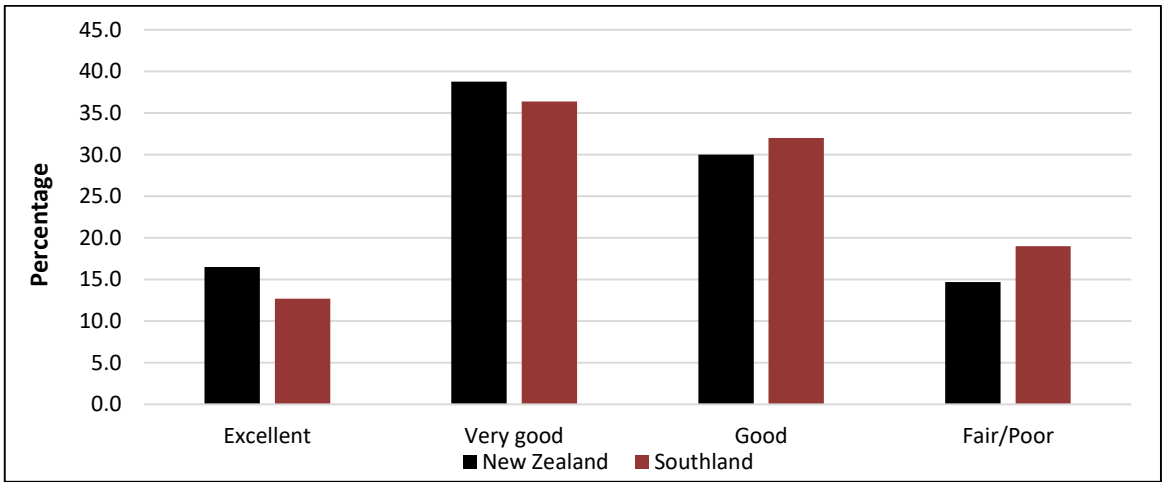

Figure 19: Self-rated health status for Southland region and New Zealand, 2018 General Social Survey. (Source: Stats NZ)

Note: ASE percentage point estimates for Southland results range from 4.6 to 7.7 per cent. New Zealand ASE percentage point estimates range from 1.1 to 1.3 per cent.

In terms of activity limitations, Southland is similar to New Zealand statistics, expect for the 65 years and over group, which is more limited (Figure 20).

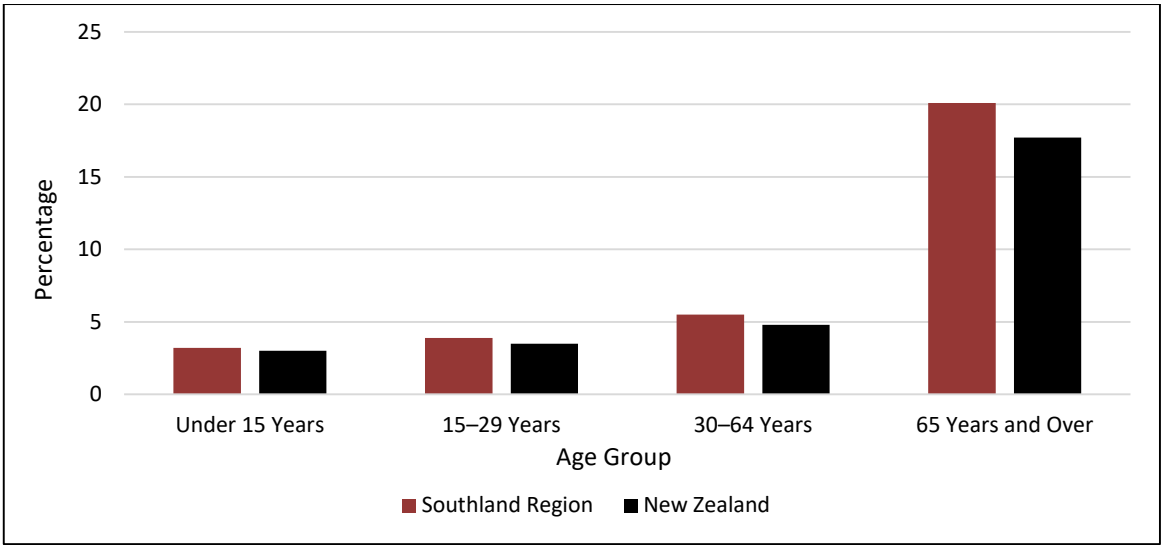

Figure 20: One or more activity limitations, by age, for people in Southland region and New Zealand, 2018 Census. (Source: Stats NZ)

Table 38 further differentiates the type of activity limitations within each SA2 in Southland. The table highlights the five SA2 areas that present the highest 'some form of difficulty' percentage in each category, and the highest percentage of 'no difficulty' responses. Four SA2 areas are represented in the top five 'some form of difficulty' responses for all categories; Donovan Park, Elizabeth Park, Glengarry, and Gore Central, all which lie within major urban centres. Gore Main has a high percentage of people in four of the five categories. These statistics can be compared to NZDep2018 scores (Table 28) and median age representations (Table 5) for these SA2 areas, which may provide some insights into why there are activity limitations. Gore Central has a high deprivation score (8) and high median age (52, the third highest). While deprivation scores are lower for Gore Main (6) and Donovan Park (4), their median ages sit within the five highest Southland SA2 areas, at 57 (highest) and 49 (fifth highest) respectively. Elizabeth Park (40) and Glengarry (38) have average median ages, yet score high on the deprivation scale (both a 9).

Table 38: Activity limitation forms for Southland region at the SA2 level, 2018 Census. (Source: Stats NZ)

Statistical Area 2	Communicating		Seeing		Hearing		Walking		Remembering	
	No Difficulty	Some Form of Difficulty	No Difficulty	Some Form of Difficulty	No Difficulty	Some Form of Difficulty	No Difficulty	Some Form of Difficulty	No Difficulty	Some Form of Difficulty
Aurora	96%	4%	81%	19%	84%	16%	83%	17%	80%	20%
Avenal	95%	5%	82%	18%	87%	13%	87%	13%	82%	18%
Awarua Plains	96%	4%	88%	12%	90%	10%	92%	8%	87%	13%
Bluff	94%	6%	75%	25%	82%	18%	80%	20%	77%	23%
Clifton	92%	8%	77%	23%	81%	19%	82%	18%	75%	25%
Crinan	89%	11%	77%	23%	85%	15%	81%	19%	73%	27%
Donovan Park	91%	9%	75%	25%	76%	24%	75%	25%	75%	25%
East Gore	94%	6%	79%	21%	81%	19%	84%	16%	78%	22%
Edendale-Woodlands	96%	4%	86%	14%	87%	13%	89%	11%	86%	14%
Elizabeth Park	88%	12%	72%	28%	77%	23%	76%	24%	69%	31%
Fiordland	93%	7%	86%	14%	96%	4%	100%	0%	89%	11%
Georgetown	92%	8%	77%	23%	84%	16%	82%	18%	77%	23%
Gladstone (Invercargill City)	97%	3%	84%	16%	87%	13%	90%	10%	88%	12%
Glengarry	90%	10%	75%	25%	79%	21%	77%	23%	73%	27%
Gore Central	86%	14%	74%	26%	73%	27%	68%	32%	69%	31%
Gore Main	92%	8%	70%	30%	73%	27%	71%	29%	71%	29%
Gore North	92%	8%	79%	21%	80%	20%	78%	22%	76%	24%
Gore South	94%	6%	78%	22%	80%	20%	83%	17%	78%	22%
Gore West	94%	6%	79%	21%	81%	19%	83%	17%	81%	19%
Grove Bush	96%	4%	83%	17%	84%	16%	90%	10%	86%	14%
Hargest	96%	4%	83%	17%	86%	14%	89%	11%	86%	14%
Hedgehope	97%	3%	88%	12%	86%	14%	93%	7%	90%	10%
Invercargill Central	90%	10%	78%	22%	86%	14%	85%	15%	75%	25%
Kennington-Tisbury	96%	4%	81%	19%	81%	19%	89%	11%	84%	16%
Kew (Invercargill City)	92%	8%	77%	23%	83%	17%	79%	21%	76%	24%
Kingswell	93%	7%	78%	22%	82%	18%	81%	19%	77%	23%
Longwood Forest	94%	6%	82%	18%	82%	18%	87%	13%	83%	17%
Lumsden-Balfour	97%	3%	83%	17%	85%	15%	88%	12%	85%	15%
Mararoa	97%	3%	84%	16%	81%	19%	91%	9%	84%	16%
Matāura	92%	8%	73%	27%	78%	22%	79%	21%	75%	25%
Mossburn	94%	6%	85%	15%	85%	15%	89%	11%	86%	14%
Moulson	93%	7%	76%	24%	83%	17%	82%	18%	76%	24%
Myross Bush	98%	2%	85%	15%	86%	14%	90%	10%	87%	13%
Newfield	91%	9%	75%	25%	81%	19%	79%	21%	76%	24%
Ohai-Nightcaps	95%	5%	84%	16%	86%	14%	85%	15%	83%	17%
Ōreti River	96%	4%	86%	14%	87%	13%	92%	8%	86%	14%
Otatara	98%	2%	84%	16%	86%	14%	91%	9%	88%	12%
Otautau	96%	4%	85%	15%	84%	16%	90%	10%	84%	16%
Prestonville-Grasmere	94%	6%	79%	21%	83%	17%	81%	19%	80%	20%
Richmond (Invercargill City)	95%	5%	80%	20%	84%	16%	85%	15%	82%	18%
Riversdale-Piano Flat	96%	4%	86%	14%	85%	15%	90%	10%	86%	14%
Riverton	93%	7%	78%	22%	78%	22%	80%	20%	78%	22%
Rosedale	96%	4%	85%	15%	86%	14%	88%	12%	87%	13%
Stewart Island	96%	4%	80%	20%	78%	22%	84%	16%	80%	20%
Strathern	92%	8%	77%	23%	80%	20%	81%	19%	76%	24%
Te Anau	97%	3%	86%	14%	85%	15%	88%	12%	85%	15%
Turnbull Thompson Park	94%	6%	82%	18%	85%	15%	85%	15%	82%	18%
Waianiwa	95%	5%	88%	12%	88%	12%	92%	8%	87%	13%
Waikaka	96%	4%	84%	16%	84%	16%	89%	11%	87%	13%
Waimumu-Kaiwera	96%	4%	85%	15%	85%	15%	91%	9%	86%	14%
Wallacetown	97%	3%	84%	16%	84%	16%	89%	11%	83%	17%
West Plains-Makarewa	93%	7%	80%	20%	83%	17%	86%	14%	83%	17%
Whitestone	97%	3%	87%	13%	83%	17%	92%	8%	86%	14%
Windsor	96%	4%	79%	21%	81%	19%	83%	17%	82%	18%
Winton	96%	4%	81%	19%	81%	19%	81%	19%	80%	20%
Woodend-Greenhills	96%	4%	82%	18%	83%	17%	86%	14%	84%	16%
Wyndham-Catlins	94%	6%	83%	17%	83%	17%	86%	14%	84%	16%

Key: Highest; Second Highest; Third Highest; Fourth Highest; Fifth Highest; Lowest

Smoking statistics are often related to health issues. Over recent Censuses, there has been a considerable decline in regular smoking activity, and the number of people who have never smoked regularly, both in Southland and New Zealand (Table 39). This is likely owing to the health implications associated with smoking, and how awareness has increased in society via such things as national messaging, increased taxation, and decreased advertisement of smoking products. There is a higher rate of smoking overall in the Southland region, compared to nationally.

Table 39: Cigarette smoking behaviour percentages for people in New Zealand, 2006-2018 Censuses. (Source: Stats NZ)

Category	Southland			New Zealand		
	2006	2013	2018	2006	2013	2018
Regular Smoker	24.3	19.2	17	20.7	15.1	13.2
Ex-Smoker	23	24.9	24.9	22.1	22.9	22
Never Smoked Regularly	52.7	55.9	58.1	57.2	62	64.8

Table 40 provides percentages of regular smokers by ethnicity. Smoking rates among Māori and Pasifika, for both Southland and New Zealand, are higher than any other ethnicity presented.

Table 40: Regular smoking percentages, by ethnicity, for Southland region and New Zealand, 2006-2018 Censuses. (Source: Stats NZ)

Category	Southland			New Zealand		
	2006	2013	2018	2006	2013	2018
European	23.8	18.5	16.2	19.4	13.9	11.9
Māori	42.6	34.8	30.1	42.2	32.7	28.3
Pasifika	41.4	30.1	29.2	30.3	23.2	21.2
Asian	15.3	9.4	9.5	11.1	7.6	6.8
MELAA	11.4	14.1	12.8	15.1	11.2	9.3
Other Ethnicity	19.1	18.2	15.7	16.6	14.4	12.5

Mental health is also an important health aspect to acknowledge. Statistics relating to mental health indicate that comparably, over time, the number of mental health diagnoses have increased for both Southland and New Zealand (

Table 41).

Table 41: Mental health indicators for Adults aged 15 and above, for Southland region and New Zealand, 2013/2014-2016-2017. (Source: Ministry of Health, 2018)

Category	Southland				New Zealand			
	2013/2014		2016/2017		2013/2014		2016/2017	
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Psychological distress	2.6	(1.2-4.8)	5.3	(3.0-9.2)	6.2	(5.5-6.9)	7.6	(7.0-8.2)
Mood and/or anxiety disorder	15.2	(10.7-21.1)	18.5	(14.1-24.0)	18.6	(17.7-19.4)	19.9	(19.0-20.9)
Depression	14.2	(9.9-19.8)	16.1	(12.0-21.3)	15.5	(14.7-16.4)	16.7	(15.8-17.7)
Bipolar disorder	0.6	(0.0-3.4)	1.1	(0.1-4.7)	1	(0.8-1.3)	1.1	(0.9-1.4)
Anxiety disorder	4.3	(1.8-8.4)	6.2	(3.3-11.1)	8.4	(7.8-9.1)	10.3	(9.7-11.0)
Mood disorder (depression and/or bipolar)	14.8	(10.2-20.8)	16.4	(12.0-22.1)	15.8	(15.0-16.6)	16.8	(15.9-17.7)

Key: The mental health indicators are for the two-yearly periods that most closely match Census years. Confidence intervals (CI) show the error rates within the data (Ministry of Health, 2018).

Suicide rates also reflect challenges related mental health. Statistics for the Southern DHB show an increase in suicide rates from the 2002-2006 period to the 2012-2016 period (Figure 21). Caution is needed with this data, however, as it is not possible to extract the suicide rates for the Southland region.

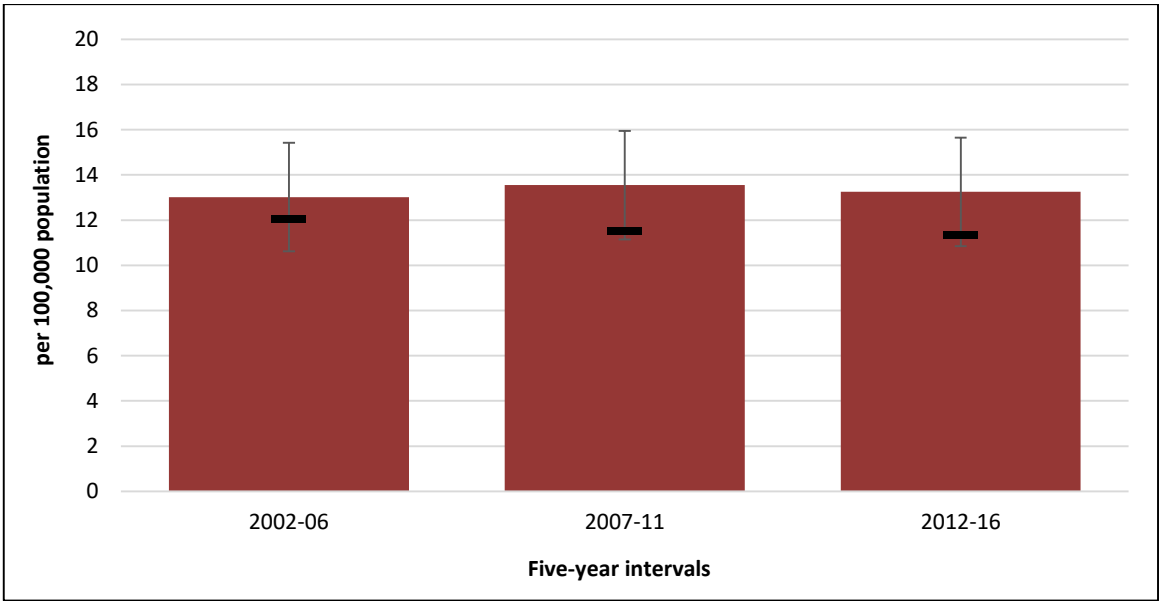

Figure 21: Five-year annual average suicide rates for Southern DHB, 2002-2016. (Source: Ministry of Health, 2019)

This section now looks at well-being. How individuals perceive their overall life satisfaction has been captured by the General Social Survey. However, overall life satisfaction was not defined in the survey and thus how each respondent interpreted the term is ambiguous. An overall reflection of how satisfied respondents feel, on a 1-10 scale, about their lives is outlined in Table 42. The table also shows how worthwhile respondents feel their lives are, and how they rank their overall

familial well-being. These responses are subjective, based on respondents' experiences and reflections, whether personal or not, and influenced by internal viewpoints and external societal expectations. While it can be hard to determine the drivers behind a persons' perception, well-being is essentially determined by the individual and how they feel about their lives. The indicator ratings in Table 42 show little difference between people in Southland and New Zealand more generally. Caution is again required when interpreting results for Southland, however, owing to error rates in the data.

Table 42: Well-being indicator mean ratings for Southland region and New Zealand, 2018 General Social Survey. (Source: Stats NZ)

Category	New Zealand	Southland
Overall life satisfaction	7.7	7.8
Life worthwhile	8.1	8.2
Family well-being	7.8	8.0

Note: ASE percentage point estimates for Southland results range from 0.3 to 0.4 per cent. New Zealand ASE percentage point estimates are 0.

5 Summary

5.1 Limitations

There are certain limitations and caveats that exist with the report. One major, tangible limitation is the availability and subsequent quality of social indicator data, particularly for the Southland region (Table 1). Data from Statistics New Zealand provides a reliable source for socio-economic data from the Census and the General Social Survey. Census data for Southland is reliable and representative. General Social Survey data looks at more subjective, social elements of life, but because of its sample size it may not particularly reflective of the population. This is especially problematic at the regional Southland level. What conclusions can be drawn from this data is therefore limited.

It is also difficult to tease out clear relationships and correlations between social indicators, and provide a clear account for the data results. While some inferences have been made throughout the report in an attempt to provide possible explanations for societal trends, it is important to acknowledge that the reasons behind a person's answer to a question may not be that simple or linear. In particular, data from the General Social Survey that explores decision-making, perceptions, viewpoints and societal norms at times cannot be simply explained. How one feels about a particular question, and the circumstances that influence individual viewpoints can be complex and multifaceted. A clear attempt has been made to recognise this complexity and avoid overly simple and objective statements about data results and trends. One way this can be strengthened in future is through more representative and detailed social data collection, both nationally and regionally.

5.2 Summary

This report has presented a range of social indicators to show how Southland's society is currently positioned, both in relation to national New Zealand social indicators and to change over time. Topics range from traditional demographic and socio-economic measures, to those that explore perceptions on issues related to mental and spiritual state, and of the perceived value of lifestyle. Understanding Southland's historical context and reflecting on the key movements, shocks and trends that have moved society forward is important when looking at current social data. It can also reveal how history has shaped the understood norms and societal expectations that effect how individuals perceive their overall livelihoods, their understanding of well-being, and their quality-of-life.

Discussion on aspects of Southland's history, focussing mainly on events over the last 70 years, reveal trends and impacts. The rise and decline of natural resource use is important in the development of Southland region, evident in social statistics today. Early Māori history in Southland shows the value of *mahinga kai*, where seasonal harvesting of resources was influential in the location of settlements, key trading routes and early overland *ara tawhito*. Upon European arrival, land sales and the development of land were driven by interests in industries such as sealing, whaling, timber, flax, coal, gold and agriculture. The development of industries over time encouraged the expansion of key rail and roading networks across the region, and township growth. Section 3 has emphasised the growth and subsequent decline of specific primary industries in the region over the last 70 years. Coal and timber decline in Western Southland, for example, led to social change and general decline in small townships in the area. Patterns of changing government legislation, of strikes and general upheaval in industries like meat processing, and the impacts that movements in conservation and environmentalism have had and are having on primary industries and large-scale industry development, show how primary industries have been impacted over the years.

The value of agriculture to the Southland region is specifically evident. Section 3 discusses the changing agricultural patterns following the arrival of Europeans. In the more recent past, discussion shows the general decline of sheep and beef in the region from the 1980s onwards, and the expansion of dairy across rural Southland. Decline in sheep numbers have been attributed to political deregulation of the agricultural industry, where the removal of subsidies and various free market interventions led to instances of hardship and increased social challenges. In general, the direct and indirect impacts of neoliberal reforms in the 1980s were shown to have caused wide-spread, long-lasting social impacts across Southland.

Some noteworthy trends and patterns can be highlighted across current social indicators. This report has shown how certain townships today remain affected by historical declines in primary based industries. For example, correlations between current social statistics for Ohai reveal issues of trending population decline, lower individual incomes, higher rates of unemployment, lower qualification rates and a decline in household numbers, in comparison to trends in other townships and areas of Southland. Connections between statistics for other Southland townships are made throughout Section 4.

Comparisons between Southland social statistics and national New Zealand statistics illustrate the region's current social profile. Section 4 has shown that Southland has an ageing population, where in particular the percentage of younger adults in the region is lower than it is nationally. Other points of note include the high percentage of labouring-type jobs that Southlanders have in comparison to national statistics, as well as a higher percentage of the Southland population having no formal qualifications than national percentages. When looking at responses to the more subjective, perception-based question from the General Social Survey, the value placed on family and friend connectivity was higher for Southland than for New Zealand. This echoes similar sentiments expressed in the community values work of the People, Water and Land programme, where the importance of family was raised in relation to freshwater values. This report has emphasised the caution required when exploring General Social Survey results for the Southland region, however, because of representation issues and high data error rates.

When looking at opportunities for future research in relation to social data collection for Southland, there are specific indicators that would be of increased value if strengthened. In particular, indicators drawn from the General Social Survey that explore perceived overall well-being, familial well-being, life satisfaction and overall perceptions of worthiness in livelihood and lifestyle could be expanded upon to truly assess how Southland communities, and the region as a whole, functions. Information on social connectivity and relations, of trust in institutions and broader societal services, and an understanding of neighbourhoods and their perceived value is currently unreliable for the Southland region. Further efforts to understand these areas of society could provide Environment Southland with a more nuanced understanding of the wider Southland community, better supporting its delivery of policy and assessing immediate need and impact. There is validity to promoting ideas of well-being and holistic assessments of communities within future work programmes, replicating how well-being is being prioritised at both national and international scales.

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