

A quantitative analysis of disadvantage and how it persists in Aotearoa New Zealand

**A supplementary report to the
A Fair Chance for All inquiry**

July (Hōngongoi) 2023



NEW ZEALAND
PRODUCTIVITY COMMISSION
Te Kōmihana Whai Hua o Aotearoa



The New Zealand Productivity Commission

Te Kōmihana Whai Hua o Aotearoa

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Contents

Overview	7
1 Developing an understanding of persistent disadvantage	14
1.1 Persistent disadvantage and wellbeing – our conceptual approach	17
1.2 Disadvantage as mauri noho – languishing	18
1.3 Translating our conceptual approach into measures of disadvantage and wellbeing.....	20
1.4 Scoping the different aspects of disadvantage and persistent disadvantage	22
1.5 Considering wellbeing and social cohesion.....	25
1.6 The structure of this report	27
2 Creating the datasets for our analysis	28
2.1 Measuring disadvantage and persistent disadvantage	29
2.2 How we examined disadvantage and persistent disadvantage	33
2.3 Key limitations.....	34
3 Persistent disadvantage in Aotearoa New Zealand	38
3.1 About one in five New Zealanders experienced persistent disadvantage	39
3.2 Many people living in income poor households in 2013 remained income poor over time.....	41
3.3 People experiencing persistent disadvantage had other evidence of disadvantage	42
3.4 Disadvantage occurred at higher rates than persistent disadvantage	43
4 Who experiences persistent disadvantage?.....	45
4.1 Population groups experiencing the highest rates and likelihood of persistent disadvantage 46	
4.2 Extending the time frame produced similar results for persistent income poverty	49
4.3 Personal and household characteristics affected the risk of people experiencing persistent disadvantage	50
4.4 Some combinations of characteristics were related to even higher rates of persistent disadvantage	59
4.5 Some people in at-risk populations did not experience persistent disadvantage	61
4.6 The same population groups experienced high rates of disadvantage.....	62
4.7 We should focus on all people experiencing persistent disadvantage.....	63
5 Entry to and exit from disadvantage	64
5.1 Disadvantage did not persist for many people	65
5.2 Others cycled in and out of, or became stuck in, disadvantage	65
5.3 Why people move into or out of disadvantage	69
5.4 Rates of entering and exiting disadvantage varied	70
5.5 Other research on life events and their effects on entry and exit from disadvantage	75

6	Connecting disadvantage, persistent disadvantage and wellbeing.....	81
6.1	Reducing disadvantage is expected to improve wellbeing.....	81
6.2	Any experience of disadvantage is associated with lower life satisfaction.....	82
6.3	Persistent disadvantage reduced life satisfaction further.....	86
6.4	Being in disadvantage is associated with distrust.....	88
7	Evidence of intergenerational disadvantage in Aotearoa New Zealand	89
7.1	Intergenerational disadvantage is largely unmeasured in Aotearoa New Zealand.....	90
7.2	Not getting a good start in life.....	91
7.3	Experiencing exclusion or deprivation at home.....	93
7.4	Not having a clear cultural identity and sense of belonging.....	95
7.5	Growing up income poor and facing barriers to growing prosperity.....	96
8	Future research / next steps.....	98
8.1	More data investment is needed to measure and understand wellbeing and disadvantage ..	98
8.2	Future research needed to understand how to support people experiencing disadvantage ..	99
	Commonly used terms	102
	Acronyms used	104
	Appendix A Technical details of our disadvantage and persistent disadvantage datasets	105
	References.....	121
	List of Tables	129
	List of Figures	130
	List of Boxes	131

Overview

The Government asked the Productivity Commission (the Commission) to undertake an inquiry into economic inclusion and social mobility, with a focus on helping people experiencing persistent disadvantage.

As part of the Terms of Reference for this inquiry, *A Fair Chance for All: Breaking the Cycle of Persistent Disadvantage*, we were asked to:

- generate new insights about the dynamics and drivers of persistent disadvantage, and the incidence and impacts across different population groups, including social and economic factors
- help raise public awareness and understanding of trends in economic inclusion and social mobility (with a focus on persistent disadvantage) in Aotearoa New Zealand.

This report is intended to respond to these parts of the Terms of Reference. It also provides evidence to support our recommendations for breaking the cycle of persistent disadvantage, so all New Zealanders can enhance their mana and wellbeing and live better lives.

Persistent disadvantage can negatively affect productivity and reduce the wellbeing of everyone in Aotearoa New Zealand. Our *A Fair Chance for All* inquiry report focuses on describing disadvantage and how it persists, examining how it relates to mauri ora, or wellbeing, and making recommendations on how to break the cycle of disadvantage. In this report, we also consider how the experience of temporary disadvantage and persistent disadvantage is related to subjective wellbeing (measured as life satisfaction), and to trust in institutions and people.

Our analysis focuses on people living in “peak working-age households” (with at least one adult aged 25–64) – referred to as “working-age households” throughout the report. Children are considered as part of the household, rather than reported on separately. We consider younger (aged 18–24) and older (aged 65+) households separately, because their experiences of disadvantage and persistent disadvantage were quite different to those of working-age households.

This report complements Treasury’s recent report on wellbeing, *Te Tai Waiora* (2022c) and its accompanying background papers. That suite of reports focused on cross-sectional trends in wellbeing, the distribution of advantage and disadvantage (including income, wealth, and hardship), segments of the Aotearoa New Zealand population (such as Māori or Pacific wellbeing), and comparisons with other countries – rather than the broader views of disadvantage and persistent disadvantage canvassed in this report.

Persistent disadvantage exists in Aotearoa New Zealand, but is hard to measure

The analytical approach taken in this report reflects the complexity of quantifying persistent disadvantage in Aotearoa New Zealand, given existing data limitations.

Throughout this report we refer to people or communities being in an unfavourable position relative to the “norm”, or the average New Zealander. This is in line with most reporting on disadvantage in Aotearoa New Zealand, including about material hardship, wealth, and poverty.

Ideally, measuring whether disadvantage persists would be possible through analysis of longitudinal datasets. As this was not available, we constructed our own, drawing on existing datasets. We undertook descriptive analyses of the incidence, distribution, and likelihood of experiencing different types of disadvantage and persistent disadvantage. We also used logistic and ordered logit regression analyses, to develop a better understanding of the relationship between different personal and household characteristics and disadvantage, life satisfaction, and trust.

Because we had limited data to construct this “longitudinal” dataset, we could only report on people’s experience of persistent disadvantage in the years we had data for (primarily 2013 and 2018). We cannot say what their experience of disadvantage would have been in other years.

Data constraints have also limited our ability to focus on some potentially important factors contributing to disadvantage and persistent disadvantage. For example, we were limited in our ability to comment on population groups such as rainbow communities (people who are lesbian, gay, bisexual, transgender, takatāpui, queer, intersex, or asexual) or specific ethnicities within either of the broad categories of “Pacific peoples” or “Asian” populations.

Disadvantage is not simply being income poor

Despite the innate strengths and abilities of people and communities to withstand life’s challenges, not everyone in Aotearoa New Zealand is experiencing mauri ora or flourishing wellbeing. Following Durie (2017), we describe this state as experiencing disadvantage or a state of mauri noho, or languishing.

Disadvantage is not simply about being income poor. This view is supported by other researchers and submitters to this inquiry. For example, Stephens (2022) demonstrated that income data only provides a “partial picture of the choices and opportunities faced by families” (p. 4), as it does not reflect family resources or wealth, or the costs associated with childcare or disabilities, among other things. Beyond this, we wanted to ensure our definition of persistent disadvantage also considered non-material elements, such as participation and belonging.

In our quantitative analysis, we used a definition of disadvantage setting out three domains that align with the absence of mauri ora:

- **being left out** (excluded or lacking identity, belonging and connection)
- **doing without** (deprived or lacking the means to achieve their aspirations)
- **being income poor** (income poverty or lacking prosperity).

In addition to these three domains, we also consider mauri noho or disadvantage as having a temporal dimension – that is, disadvantage may be temporary, persistent, or intergenerational. Temporary disadvantage is short term, occurring over a timeframe of less than two years. When disadvantage is ongoing, whether for two or more years, or over a life course, we define this as persistent disadvantage. We use the term intergenerational disadvantage when disadvantage occurs across generations – that is, it is transmitted from one generation to another.

We also consider the potential complexity of disadvantage and persistent disadvantage, by identifying simple disadvantage or simple persistent disadvantage that occurs in one domain, and complex disadvantage or complex persistent disadvantage that occurs in two or all three domains.

Too many New Zealanders experience persistent disadvantage

We found that approximately one in five New Zealanders (18%, or 697,000 people) experienced persistent disadvantage in one or more domains in both 2013 and 2018. Around one in twenty New Zealanders (4.5%, or 172,000 people) experienced complex and multiple forms of persistent disadvantage (in two to three domains).

The most common domain of persistent disadvantage experienced was being left out (8.8%, or 337,000 people). This was followed by being income poor (7.4% or 283,000 people), and then doing without (6.9%, or 265,000 people).

Some groups experienced higher rates of persistent disadvantage

On average, current-day New Zealanders are healthier, better educated, have higher incomes, and live in communities with less crime than previous generations. However, this aggregate story conceals significant differences in wellbeing – demographically, geographically and intergenerationally (NZPC, 2022a; The Treasury, 2022c).

As shown in [Table 1](#), the proportions of renters in public housing (“public renters”), people from families with no formal (high school) qualifications, sole parents, and Pacific peoples experienced one or more domains of persistent disadvantage at rates that were several times higher than those of the “average” Aotearoa New Zealand population.¹ For example, the table shows that between 60–70% of public renters and people in households with no high school qualifications experienced some form of persistent disadvantage.

¹ Note that none of the relationships between population groups and disadvantage or persistent disadvantage should be interpreted as group membership causing disadvantage.

Table 1 Percentage of population group experiencing persistent disadvantage in specified domains in both 2013 and 2018 (working-age households)

Population groups more likely to experience persistence	Population (%)	Persistently disadvantaged		
		One domain in both years (%)	Two or more domains in both years (%)	Any type of disadvantage in both years (%)
Public renters	5.2	33.2	30.1	63.4
No high school qualification in HH	6.4	46.5	22.5	68.8
Sole parents	9.5	24.8	11.5	36.4
Disabled people	4.1	21.1	9.9	31.1
Māori	16.9	18.0	8.5	26.6
Pacific	9.0	31.1	14.6	45.7
Asian	17.7	15.8	3.8	19.5
Total – working age HH	100	13.7	4.2	18.2

Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data.

Notes: “Population” is the households with at least one adult aged 25–64 years (“working-age households”).

Overall, compared with all working-age households, public renters or people living in households with no high school qualifications experienced the highest rates of persistent disadvantage in one or more domains, while people in Pacific² or sole-parent households experienced the next highest rates of persistent disadvantage in one or more domains. People in Māori or disabled-people households also experienced higher rates than all working age households. By contrast, Asian peoples experienced being income poor or doing without at rates greater than the average working-age household, but they were less likely to be left out or experience persistent disadvantage in two or all three domains. Apart from ethnicity (reflecting that characteristics other than ethnicity were more strongly associated with experiencing persistent disadvantage), these patterns still held in logistic regression analysis, which accounted for personal and household characteristics associated with disadvantage, such as age, household type, housing tenure, disability, and so on.

² The higher rates for people in Pacific households may reflect the younger, Auckland-based population, as discussed in Chapter 4.

For many people, disadvantage does not persist

All of us experience challenges in our life that can temporarily impact our wellbeing and move us into mauri noho. For most of us, these periods of disadvantage are relatively short. We found that 45–48% of working-age New Zealanders experienced disadvantage at least once in a 5-year period, but for 60–63% of people experiencing disadvantage, this may have been a temporary or one-off experience. For example, young people typically receive lower pay in their first jobs than they will earn in their later life, as they acquire skills and experience, and learn what employment best suits them.

Many people can get themselves through a temporary period of disadvantage by drawing on their own resources, accessing support from family and friends and the local community, and from the Government (McLachlan et al., 2013a; NZPC, 2022a).

Disadvantage is often easier to enter, and harder to exit and stay out of

While some people had a one-off experience of disadvantage, for other people, disadvantage recurred or persisted. People who were income poor were far more likely to experience recurrent spells of income poverty than those who experienced being deprived or excluded, but the rates of repeated entry and exit across the three domains were all quite high.

People were more likely to enter into income poverty or simple disadvantage (from no disadvantage), than enter into complex disadvantage. It was harder to exit complex disadvantage (to no disadvantage) than to exit income poverty or simple disadvantage.

People in households experiencing complex disadvantage in 2013 were more likely than other households to gain qualifications and/or employment (more workers in the household) by 2018. This would place them in a better position to exit disadvantage. However, people experiencing complex disadvantage were also more likely to transition from owning their own home to renting, or to experience a relationship breakdown, perhaps reflecting the impacts of experiencing disadvantage.

People living in Māori, Pacific, sole-parent, or disabled-people households were generally more likely to enter into any type of disadvantage and less likely to exit. Living in a household with any type of formal qualification (high school or higher) lessened the likelihood of entering into disadvantage, while exit rates were higher compared with people in households with no qualifications.

The reasons people enter and exit disadvantage are complex and not fully understood. Entry and exit are often associated with changes in family formation; knowledge, skills, and employment; physical and mental health (including injury); quality of housing; and lifecycle transitions. Lack of cultural identity and inadequate support from the public management system may also be contributing factors.

The rate of temporary disadvantage in Aotearoa New Zealand is fairly constant over time

We used the Household Economic Survey to examine trends in temporary disadvantage across the three domains over six years between 2015/2016 and 2020/2021.³ We found the rate of disadvantage (whether in one domain or multiple domains) remained consistent across that six-year period.

Generally, annually reported rates of disadvantage in any domain or combination of domains were at least twice the rates of persistent disadvantage. This is consistent with an earlier Aotearoa New Zealand study using six years of data from the Survey of Family Income and Employment (Carter & Gunasekara, 2012). However, this finding is limited by data availability, and it may not hold over the longer term or, for example, through economic downturns.

Any experience of disadvantage was negatively related to life satisfaction and wellbeing

We also considered how the experience of disadvantage and persistent disadvantage related to people's subjective wellbeing (measured by life satisfaction, feeling life is worthwhile, and family wellbeing) and trust (in institutions such as Parliament, the police, the courts, and in people).

Life satisfaction has been found to be a good indicator of subjective and objective wellbeing. Reported life-satisfaction ratings are also correlated to third-party reports and biomarkers of health, a good predictor of life expectancy, and are highly reliable on retesting of the same populations (De Neve et al., 2020).

As might be expected, we found that people with no disadvantage or persistent disadvantage had the highest life-satisfaction scores of any group. Experiencing disadvantage was associated with lower life satisfaction, with people experiencing more domains of disadvantage reporting lower life satisfaction than those experiencing fewer domains. People at risk of experiencing persistent disadvantage, such as sole parents, households of unrelated people, and public and private renters, had much lower ratings of life satisfaction than other populations.

We found a strong relationship between low levels of trust and experiencing disadvantage, particularly for people experiencing being excluded or deprived.

³ For convenience, we refer to this dataset as "2016–2021 HES" throughout this report.

Evidence of intergenerational disadvantage exists, but measuring its size or effects is not yet possible

Evidence of intergenerational disadvantage in Aotearoa New Zealand exists (Hughes, 2022a; L. Iusitini, 2022), but measuring the size or extent of its impact is not possible using current data collections. The following factors have been found to increase the risk of persistent disadvantage being transmitted to future generations.

- Not getting a good start in life due to the ongoing exposure to stress at home, lack of support during childhood, and not being cared for.
- Experiencing exclusion and deprivation at home because of a lack of access to (non-income) resources needed to help children grow and develop. Children of parents with low levels of education, or who live in sole-parent households are more likely to experience insufficient resources during childhood, which can flow through to their adult lives.
- Not having a sense of identity and belonging can lead to intergenerational disadvantage by making it hard for children to fully participate in society and take up opportunities to help them develop and grow.
- Being income poor in childhood can create barriers to growth and prosperity in adulthood. One in three children who grew up in households with the lowest family incomes remained in households with the lowest family incomes in adulthood. Parental income and education were associated with transmitting disadvantage and advantage to their children in the form of income levels and education achievement in adulthood.

Future research / next steps

We found it challenging to estimate the extent of persistent disadvantage in Aotearoa New Zealand because of a lack of longitudinal data. Going forward, a better solution is needed to measure and monitor persistent disadvantage. Stats NZ's Living in Aotearoa survey, which will follow New Zealanders over six years, could be used to measure persistent disadvantage from 2026.

In our final inquiry report, *A Fair chance for all: Breaking the cycle of persistent disadvantage*, we recommended investing in “data collection for measuring wellbeing and disadvantage over the life course, between generations, and within communities” (NZPC, 2023a, p. 130). We also raised the possibility of developing wellbeing year (WELLBY) values for use in policy and programme development and assessment. The wellbeing years approach, developed in the United Kingdom, defines a WELLBY as a 1-point change in life satisfaction on a 0–10 scale, per person per year. Using WELLBYs enable policy options to be assessed based on their net effect on years of human wellbeing. WELLBYs can also be monetised and used in cost-benefit analysis.

1 Developing an understanding of persistent disadvantage

Key points

- Persistent disadvantage can negatively affect productivity and reduce the wellbeing of everyone in Aotearoa New Zealand.
- While this report focused particularly on measuring persistent disadvantage, we did so in the context of its effect on wellbeing, as defined through our mauri ora approach.
- Our mauri ora approach includes four dimensions of human wellbeing: **mana tuku iho** (identity and belonging); **mana tauutuutu** (connection and balance); **mana āheinga** (aspiration and capability); and **mana whanake** (prosperity). Enhancing these four dimensions contributes to overall wellbeing and enables people to live better lives.
- Disadvantage, or mauri noho, is the opposite of mauri ora.
- Disadvantage is more than just low income. We have measured disadvantage across three domains: **being left out**, **doing without**, and **being income poor**.
- Disadvantage also has a temporal dimension.
 - **Temporary disadvantage** (or more simply, disadvantage) lasts for less than two years.
 - **Persistent disadvantage** is ongoing for two or more years or over a life course.
 - **Intergenerational persistent disadvantage** occurs across generations.

The Government asked the New Zealand Productivity Commission (the Commission) to undertake an inquiry into economic inclusion and social mobility, with a focus on supporting people experiencing persistent disadvantage to live better lives – the A Fair Chance for All inquiry.

Part of the Terms of Reference for the inquiry noted that there is limited understanding of how trends in economic inclusion and social mobility impact on individuals, different population groups and wider society; their dynamics across lifetimes and generations; and linkages to productivity and economic performance. [Box 1](#) provides an overview of some linkages between persistent disadvantage, productivity, and economic growth.

To address this gap, we were asked to:

- generate new insights about the dynamics and drivers of persistent disadvantage, and the incidence and impacts across different population groups, including social and economic factors
- help raise public awareness and understanding of trends in economic inclusion and social mobility (with a focus on persistent disadvantage) in Aotearoa New Zealand.

This report is intended to respond to these parts of the Terms of Reference. It provides additional quantitative evidence to support our recommendations for breaking the cycle of persistent disadvantage for current and future generations of New Zealanders.

Be watchful, be alert. Watch over this generation of children, watch over that generation of grandchildren. Tend and care for them well, ensure their protection, so they stand as proud individuals, so they stand strong, so they, in time, pass on these skills to their own. They all flourish and prosper, we all flourish and prosper, and so too the world.

(Oranga Tamariki Ministerial Advisory Board, 2021, p. 5)

This report should be read alongside our final inquiry report, *A Fair Chance for All: Breaking the Cycle of Persistent Disadvantage* (NZPC, 2023a). The final inquiry report describes how the public management system in Aotearoa New Zealand contributes to and exacerbates disadvantage and persistent disadvantage, particularly through systemic barriers such as power imbalances, discrimination, and short-term thinking, and by the siloed and fragmented nature of government. The exploration of the systemic barriers and their origins provide the context for our recommendations to reshape the public management system to empower people to lead better lives.

Box 1. Why is the Productivity Commission concerned with persistent disadvantage?

Productivity growth is an important driver to improve living standards and wellbeing for all New Zealanders.

Productivity is about making the best use of Aotearoa New Zealand's wealth to generate as much wellbeing as possible. "Wealth" is broadly defined in the Living Standards Framework and includes human capability, social cohesion, and the natural environment, as well as financial and physical capital (The Treasury, 2021). But even productivity in the often-used narrower sense (unit of economic output per unit of input) is important. Either way, by increasing productivity, we can produce more goods and services with the same or less input, increasing the choices we have about how to use our resources to enhance our current and future wellbeing (Ibid. 2021).

For the people of Aotearoa New Zealand, improved productivity can support wellbeing by increasing our incomes and consumption, or by allowing us to reduce our hours of work to enjoy more free time. Higher incomes and consumption make a difference to how satisfied people are with their lives. Higher incomes also provide more opportunity to fund public goods and services such as schools, hospitals, and infrastructure, through tax. Higher productivity can protect future wellbeing by providing more income to invest in our national wealth, or by enabling us to use existing wealth and resources less intensively.

Persistent disadvantage can put a brake on productivity because of lost income, additional costs, or lost investment opportunities.

Lost income

People experiencing persistent disadvantage often lack the capabilities and opportunities to participate in the labour market and earn higher wages. This constrains a household's income and ability to contribute to economic activity and growth in the wider community. Paid work increases economic output from greater participation in the labour market, higher productivity in paid work, and lower unemployment (NZPC, 2022b).

Productivity increases in paid work arise when an individual moves from unemployment to employment, which increases their (paid work) productivity from zero to their new wage rate. Productivity can be further increased if an individual can invest further in their knowledge and skills, either on the job or by undertaking education and training.

Persistent disadvantage can also make it harder for people to be engaged in productive activities that are not captured as economic output, such as running a household, caring for children or other family members, or volunteering in their community.

Additional costs and missed investment opportunities

A high prevalence of persistent disadvantage can lead to governments having to spend money on things society would prefer to avoid, such as treating preventable physical and mental health conditions, welfare, and responding to crime. This leaves the government with less money to invest in supporting future growth in productivity and wellbeing – such as through investment in preventative health measures and education programmes, access to transport, and improving local amenities (NZPC, 2022b).

1.1 Persistent disadvantage and wellbeing – our conceptual approach

Wellbeing is more than the absence of illbeing, just as health is more than the absence of disease.
(Huppert, 2014, p. 3)

Rather than seeking to define economic inclusion and social mobility separately, the interim report for the A Fair Chance for All inquiry concluded both terms can be integrated in the concept of “social inclusion”.

Social inclusion was defined as “for all New Zealanders to live fulfilling lives where individuals, their families, whānau and communities have a strong sense of identity, can contribute to their families and communities, have the things they need to realise their aspirations, and nourish the next generation” (NZPC, 2022a, p. 17). To establish this definition, the Productivity Commission drew from earlier Royal Commissions on social inclusion, Treasury’s Living Standards Framework, the All-of-Government Pacific Wellbeing Strategy, and He Ara Waiora – a tikanga framework that conceptualises a Māori perspective on wellbeing.

We used mauri ora (flourishing) as the central concept to describe the wellbeing and productivity outcomes we are seeking for all New Zealanders in this inquiry. Our metric for whether an aspect of disadvantage is important is whether it is associated with the wellbeing or mauri ora of individuals, whānau, families or communities.

Our mauri ora approach⁴ (Figure 1) includes the four dimensions of human wellbeing from He Ara Waiora, as well as elements from the Living Standards Framework and the All-of-Government Pacific Wellbeing Strategy. The four dimensions of wellbeing are: *mana tuku iho* (identity and belonging); *mana tauutuutu* (connection and balance); *mana āheinga* (aspiration and capability); and *mana whanake* (prosperity). This approach informs our definition and analysis of persistence disadvantage in this report.

An important aspect of this approach is the principle of equity. This recognises that every individual, family, whānau and community has their own set of life events, circumstances, living environments and resources that may affect their ability to live lives they find fulfilling, and support them to access whatever they may need to flourish.

[T]he main goal is for me to come off the benefit so that I can provide for my own kids and take them out and can afford to.
Hanna (Garden et al., 2014, p. 22)

⁴ We acknowledge the breadth of this concept that has no direct English translation but follow Durie (2017), using “flourishing” to describe mauri ora and “languishing” for mauri noho.

Figure 1 Mauri ora – creating a fair chance for all



People and communities experience wellbeing through four mana-enhancing dimensions.

- **Mana tuku iho** – have a strong sense of identity and belonging.
- **Mana tauutuutu** – participate and connect within their communities, including fulfilling their rights and obligations.
- **Mana āheinga** – have the capability to decide on their aspirations and opportunities to realise them in the context of their own unique circumstances.
- **Mana whanake** – have the power to grow sustainable, intergenerational prosperity.

1.2 Disadvantage as mauri noho – languishing

According to Durie (2017) the opposite of mauri ora is mauri noho – “languishing” or “sitting dormant”. We equate this with disadvantage, which may continue for a short period of time, across a life course or across generations (Lee & Solon, 2009; Xie & Killewald, 2013). Mauri noho is a description of people living in disadvantage, who are experiencing barriers to thriving and are not able to live the lives they want to live.

Disadvantage is considered across three domains

In line with our mauri ora approach, we developed an analytical model of disadvantage and persistent disadvantage with three domains. This is similar to the Australian Productivity Commission model (McLachlan et al., 2013), which also recognised that disadvantage is more than just being income poor. Saunders & Wong (2012) similarly observed that low income increases the risk of poverty but may not always result in poverty. This broader view of disadvantage is supported by other researchers and submitters to this inquiry (NZPC, 2021). For example, Stephens (2022) demonstrated that income data only provides a “partial picture of the choices and opportunities faced by families” (p. 4) in Aotearoa New Zealand, as it does not reflect family resources or wealth, or the costs associated with childcare or experiencing disabilities, among other things.

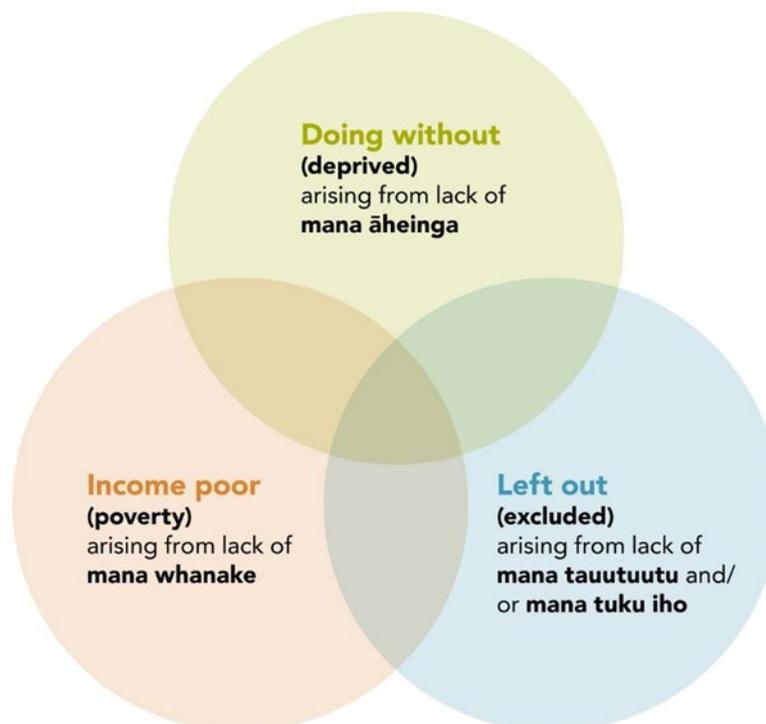
In addition to being income poor, [Figure 2](#) illustrates that people may be disadvantaged by being “left out” (or excluded) in their communities and society, because mana tauutuutu or mana tuku iho may be absent or reduced. Alternatively, lacking resources and capabilities as part of mana āheinga, they may be “doing without” (or deprived). The complexity of disadvantage has been described as:

...a shorthand term for what can happen when people or areas face a combination of linked problems such as unemployment, discrimination, poor skills, low incomes, poor housing, high crime, bad health, and family breakdown. These problems are linked and mutually reinforcing so that they can create a vicious cycle in people’s lives.

(Social Exclusion Unit, 2004, p. 3)

The three domains in our model are different, but related. As indicated by the overlapping segments of the Venn diagram, disadvantage can occur in one, two or all three domains, and/or can affect multiple measures within one domain. This seven-segment typology shows that individuals, families, whānau and communities experiencing disadvantage can face a diverse range of issues in attempting to enhance their mauri ora or wellbeing and live better lives.

Figure 2 Domains of disadvantage and their relationship with the four dimensions of mauri ora



Disadvantage has a temporal dimension

In addition to these three domains, we also consider mauri noho (or disadvantage) as having a temporal dimension – that is, disadvantage may be temporary, persistent, or intergenerational, as outlined in [Table 2](#).

Table 2 Temporal dimensions of disadvantage

Timeframe of disadvantage	Definition
Temporary	Short-term disadvantage, occurring over a timeframe of less than two years
Persistent	Ongoing disadvantage, whether for two or more years, or over a life course (intragenerational)
Intergenerational	A subset of persistent disadvantage, where it occurs across generations

As discussed in [Chapter 5 Entry to and exit from disadvantage](#), some people may experience a cycle of disadvantage (referred to as “recurrent disadvantage”). The impact of recurrent disadvantage may be similar to persistent disadvantage (Arranz & Cantó, 2012; Atkinson et al., 2017; Biewen, 2014; Bossert et al., 2012; Vaalavuo, 2015). People experiencing recurrent disadvantage can face uncertainty about their ability to provide for themselves and their family, even when they are not currently disadvantaged. In addition, people in households experiencing income poverty may not be able to “smooth” their consumption over time, as they do not have access to savings and cannot borrow (Krueger & Perri, 2005). This uncertainty may increase the likelihood of them re-entering income poverty or deprivation in the future.

1.3 Translating our conceptual approach into measures of disadvantage and wellbeing

The following section sets out the analytical definition we have developed to quantify the concepts described earlier. In the case of disadvantage and persistent disadvantage the definitions have two important elements. First, we consider all three of the disadvantage domains outlined above, and then we define the period over, and method where, we measured disadvantage and its persistence. As set out in [Box 2](#), we encountered difficulties in quantifying persistent disadvantage, and we were unable to quantify intergenerational disadvantage from the available data.

Within each domain and for wellbeing, we adopted existing measures within the data we had available, and which met the scope of this inquiry. We acknowledge other people may have different perspectives and use different definitions of disadvantage and persistent disadvantage.

Box 2. What we already know about quantifying disadvantage and persistent disadvantage in Aotearoa New Zealand

In Aotearoa New Zealand, most of the public discourse around disadvantage is based on cross-sectional data collected through annual or biennial (occurring every two years) surveys.

“Cross-sectional” means that new groups of individuals are interviewed when the survey is repeated, and disadvantage is therefore measured and reported at a given point in time. For example, the data collected and reported on for Stats NZ Ngā Tūtohu Aotearoa – Wellbeing indicators and Treasury’s Living Standards Framework are obtained at a point in time through an annual survey of a representative sample of New Zealanders. These data collections are unable to say whether disadvantage in specific people’s lives is temporary or more persistent.

Aotearoa New Zealand has limited longitudinal data following the same people, families or communities over time that could be used to measure persistent disadvantage.

Where longitudinal information is available, it has primarily been collected by developmental and health studies, such as the Dunedin Multidisciplinary Health and Development Study (started in 1972), the Christchurch Health and Development Study (started in 1977) and, most recently, the Growing Up in New Zealand Study (started in 2009). These studies mainly monitor health and development for a small cohort of New Zealanders born in the same year and, in our view, collect relatively little information that is relevant to analysing disadvantage and persistent disadvantage. Although the monitored cohorts have been found to be moderately representative of the overall Aotearoa New Zealand population, there are some known differences and, in some cases, their small sample size limits the ability to meaningfully disaggregate the findings to populations of interest. Where possible, we have drawn on findings from these studies to inform our analysis in the following chapters.

In addition, Stats NZ ran a short-lived Survey of Families, Income and Employment (SOFIE) between 2002–2009. Since then, the only other source of longitudinal data has been from Stats NZ’s Integrated Data Infrastructure (IDI) project. Rather than a longitudinal survey, this is a composite dataset created by matching people’s data from different administrative and survey datasets over time. The IDI therefore lacks important details about a person’s life course, including significant events and circumstances and the impacts on their wellbeing or mauri ora. Some of these details can be generated from health, employment, government assistance, births, deaths, and marriages data, but this would require major investment beyond the scope of this inquiry.

Most recently, Stats NZ has made changes to the way it collects some information on disadvantage to meet the requirements of the Child Poverty Reduction Act 2018. Starting in 2021–2022, the new Living in Aotearoa survey is running a rotating 6-year panel, adding approximately 7,300 new households per year, with the aim of retaining at least 5,000 each year. Participants are interviewed annually to obtain some information on the persistence of income poverty and “material hardship”, which includes measures of being left out and doing without. Stats NZ is boosting sampling to ensure good Māori representation, as well as representation of more deprived geographical areas.

From 2026 onwards, data from the Living in Aotearoa survey could be used to construct measures of “persistence” based on the number of consecutive periods an individual is below a particular threshold in each disadvantage domain, or the number of years spent below the threshold within a specified length of time – that is, up to six years. This data would also allow annual reporting of prevalence, or the proportion of the population experiencing persistent disadvantage. However, as currently constructed, the survey is limited in its ability to establish trends in wellbeing over a life course or across generations.

In the absence of an existing longitudinal dataset, we constructed our own, as set out in [Chapter 2 Creating the datasets for our analysis](#).

1.4 Scoping the different aspects of disadvantage and persistent disadvantage

This section describes our approach to measuring the domains and temporal dimensions of disadvantage. The specific indicators for each domain are set out in [Chapter 2 Creating the datasets for our analysis](#).

Being income poor

Income poverty can be considered in absolute or relative terms. As of September 2022, the World Bank defined the International Poverty Line (World Bank, 2022) for extreme (absolute) income poverty – the level at which people cannot fulfil their minimum daily needs – as US\$2.15 (around NZ\$3.50) a day in low-income countries, and US\$24.36 (around NZ\$40) a day in high-income countries.

Alternatively, some high-income countries, such as Aotearoa New Zealand, use a relative measure to define being income poor. As is the case in other high-income countries, we define being income poor as occurring when income is equal to or less than 60% of median household equivalised disposable income per person, before housing costs.

Doing without

We also measure doing without or being deprived in relative terms. Our measures of being deprived focus on the inability to acquire “essential” or basic goods and services that are generally part of “everyday” life (such as food, adequate housing, insurances, heating), usually because of affordability or costs. A particular emphasis in this report has been on housing conditions, given the limited measures for being persistently deprived available in the 2013 and 2018 Censuses.

To achieve a healthy standard of living, people need access to essential resources such as good quality food, transport, healthcare, and secure, warm housing.

(NZPC, 2021, p. 9)

Being left out

Being left out or excluded indicates that people are not able to connect with others and/or to participate in key activities in their community or society that they and others in the community regard as important to mauri ora and wellbeing (Saunders et al., 2007).

I also believe having both meaningful opportunities no matter one's capability, engagement and participation within one's community, and a sense of belonging is essential for wellbeing.

(NZPC, 2021, p. 6)

Being left out can arise when an individual or family:

- experiences life events and circumstances that go unsupported (for example, due to medical conditions, disability, lack of employment, lack of qualifications), or create barriers to participation (for example, racism; discrimination; victimisation; and/or antisocial behaviour, such as criminal activities, drug, or alcohol addictions)
- lives in a social and/or physical community where they lack access to the support they require – for example, because of prohibitive costs, lack of available resources or services, or poor transport networks.

Being excluded may occur in “degrees rather than all-or-nothing terms” (Saunders & Wong, 2012, p. 15). For example, not being able to access education and obtain suitable qualifications may have a stronger association with overall wellbeing than not having access to a household vehicle (assuming other transport options are available), or not having suitable clothes for an important or special occasion.

Like being deprived, being excluded⁵ is also considered in relative terms and is compared with the “average” New Zealander.

Temporary disadvantage

Following the example set by the OECD (2007) and European Union (Atkinson et al., 2017), temporary disadvantage is defined as occurring for less than two years.⁶ The OECD (2007) defined people with low income in three years over a three-year period as the “persistent poor”, and those experiencing low income for two of three years as the “recurrent poor”. Similarly, the European Union considered a person who is currently income poor, and who was income poor in at least two of the three preceding years, to be persistently at risk of experiencing poverty (Jenkins & Van Kerm, 2014; Vaalavuo, 2015).

⁵ The term “being excluded” should not be confused with “social exclusion”, which is typically used to encompass all three domains of disadvantage, including the absence of all four dimensions of mauri ora.

⁶ When it comes to measurement, it is important to distinguish between ex post temporary disadvantage and point-in-time measures (what is called “point prevalence” in epidemiology). Because true longitudinal data for individuals and their families is rare, we generally only observe people at a point in time, so can only describe their state at that moment. If we have multiple points in time, we can identify types of disadvantage that may either be continuously occurring between two (or more) points in time, or that may be recurring at different points of time.

If a period of disadvantage is observed to end after less than two years, we refer to it as temporary. We acknowledge that experiencing disadvantage for a year and a half does not feel very temporary to the people concerned.

For the remainder of this report, if we use the term “disadvantage” without saying that it is persistent, we mean disadvantage that is temporary.

Persistent disadvantage

International literature uses two main methods for measuring persistent disadvantage: the *fixed-time-spread* approach and the *period-to-period* approach. The fixed-time-spread approach draws on longitudinal data to determine when a household is in persistent disadvantage, by counting the number of periods within a fixed timeframe that a household is below a given threshold of disadvantage (Biewen, 2014). The OECD and European Union measures described above are examples of the fixed-time-spread approach.

Because we lacked an updated longitudinal dataset (see [Box 2](#)) that is a fundamental requirement to use a fixed-time-spread approach, we adopted the period-to-period approach in our analysis. This approach measures transitions in disadvantage in each domain from one period to another. It is less demanding than the fixed-time-spread approach in terms of information requirements, but this means it is also less informative, as we cannot see from year to year how individuals or households are faring (Biewen, 2014). This approach was used by Creedy & Ta (2022) and Borooah & Creedy (1998) in Aotearoa New Zealand to assess measures of low income. Our analysis goes beyond this earlier work to include the three domains of disadvantage.

Due to data limitations, we could not know whether some households’ experience of disadvantage may have started prior to the time period we observed or continued beyond the end of the time period – a factor known as “censoring” (Biewen, 2009). More data points across time and/or a longer timeframe would not only enhance our understanding of the depth and breadth of persistent disadvantage, but may also allow analysis of recurrent periods or spells of disadvantage (known as “spell accumulation”) – important in understanding the effects of persistent disadvantage in a given population (Arranz & Cantó, 2012; Biewen, 2014; Bossert et al., 2012; Vaalavuo, 2015).

Because of limited data availability, we could only measure being deprived or excluded at two points in time: in 2013 and 2018. However, we were able to measure income poverty over three points in time in a five- to eight-year period.

Intergenerational disadvantage

Although we have evidence that intergenerational disadvantage exists, Aotearoa New Zealand currently has limited evidence on either the *incidence* or *prevalence* of intergenerational disadvantage, as nationally representative longitudinal administrative or survey data are not available. We have reported on some of the research into intergenerational disadvantage in [Chapter 7 Evidence of intergenerational disadvantage in Aotearoa New Zealand](#).

1.5 Considering wellbeing and social cohesion

Our analysis primarily focused on measures *contributing to* disadvantage and persistent disadvantage, and their *association with* (subjective) wellbeing or mauri ora. As indicated by [Box 3](#), this meant we could consider what people or communities are lacking (their deficits), and what they could build on (their strengths) to exit persistent disadvantage. To measure wellbeing, we primarily focused on life satisfaction, and to a lesser extent, sense of purpose (or that “life is worthwhile”), and family wellbeing.

We have also drawn a link to social cohesion, which is an important aspect of wellbeing at the population level, as well as being related to mana tauutuutu and mana tuku iho. Social cohesion is defined in Treasury’s Living Standards Framework as “the willingness of diverse individuals and groups to trust and cooperate with each other in the interests of all, supported by shared intercultural norms and values” (The Treasury, 2022b, p. 13).

The sections below set out the measures for wellbeing and social cohesion that we have used in this report.

Life satisfaction was our primary measure of wellbeing

The commonly accepted measure for subjective wellbeing is life satisfaction, which is the measure used in Treasury’s Living Standards Framework. In the interim report for our A Fair Chance for All inquiry, we used the life-satisfaction measure from the Household Economic Survey as a proxy measure for mauri ora or wellbeing. An advantage of subjective wellbeing measures is that they enable individuals and their families to define their goals and the life they want to live on their own terms.

Life satisfaction has been found to be a good indicator of subjective and objective wellbeing. For example, De Neve et al. (2020) reported life-satisfaction ratings as being correlated to third-party reports and biomarkers of health, a good predictor of life expectancy, and as being highly reliable on retesting of the same populations.

We used trust as one measure of social cohesion

The definition of social cohesion above focuses on the outcomes of cooperation and trust, which may arise from intangible norms and values that society holds. Measuring trust in institutions and in people is an accepted proxy for social cohesion, given the central role of trust as the “glue that holds society together” (The Treasury, 2022b, p. 9). Higher levels of trust lead to lower risk and costs in almost any type of engagement or transaction in society or the marketplace. Reduced transaction costs reduce the need for enforcement and compliance, freeing up resources for productive investment. Improving levels of trust have been demonstrated to contribute to growth of per capita income and improved productivity (Smith, 2020).

In addition to trust, measures of sense of identity and belonging (or social connection), community engagement and participation, and personal and community or neighbourhood safety also provide insights into social cohesion.

We examine the relationship between disadvantage and trust in institutions (such as courts, police, education, media, and health), trust in Parliament, and trust in people, using data drawn from the General Social Survey, in section 6.4 We also analyse personal and neighbourhood safety and sense of cultural identity in the context of disadvantage and wellbeing in [Chapter 4 Who experiences persistent disadvantage?](#) and [Chapter 6 Connecting disadvantage, persistent disadvantage and wellbeing.](#)

Box 3. The tensions between quantifying deficits and taking a strengths-based approach

Measuring disadvantage focuses on what people or communities are lacking (their deficits), rather than what they must build on (their strengths). This can lead to stigmatising views of people and their experiences, particularly as a deficit approach does not recognise that people may be making choices that appear to put them into disadvantage (for example, to not be working because they have decided to support and spend time with their young child at home).

Conversely, a “strengths-based” approach can also unintentionally minimise the fact that some people and families are left without access to the support needed to help them thrive (Davies et al., 2022). Access may not be equal or equitable due to various factors, such as lack of availability, discrimination, a lack of transport or its cost.

Overall, the A Fair Chance for All inquiry is not only focused on describing disadvantage or persistent disadvantage. Instead, we seek to understand how experiencing disadvantage or persistent disadvantage affects the ability of people and communities to enhance mauri ora or wellbeing. In this report, we consider how the experience of disadvantage and persistent disadvantage relates to subjective wellbeing and trust in institutions and in people. In addition, our final inquiry report focused on how the public management system could be improved to enhance the four dimensions of mauri ora or wellbeing for everyone, especially for people experiencing persistent disadvantage.

1.6 The structure of this report

The remainder of this report is as follows.

- Chapter 2 Creating the datasets for our analysis, focuses on our novel approach to creating our datasets from two Censuses and two national surveys to measure disadvantage and persistent disadvantage.
- Chapter 3 Persistent disadvantage in Aotearoa New Zealand, presents the high-level results on persistent disadvantage in Aotearoa New Zealand.
- Chapter 4 Who experiences persistent disadvantage?, examines in more detail who experiences persistent disadvantage.
- Chapter 5 Entry to and exit from disadvantage, describes entry into and exit from disadvantage, and the factors contributing to different rates of entry and exit.
- Chapter 6 Connecting disadvantage, persistent disadvantage and wellbeing, analyses the relationship between disadvantage and persistent disadvantage and wellbeing and life satisfaction.
- Chapter 7 Evidence of intergenerational disadvantage in Aotearoa New Zealand, discusses the experience of intergenerational disadvantage in Aotearoa New Zealand and elsewhere, drawing from the literature and from recent New Zealand studies.
- Chapter 8 Future research / next steps, concludes the report with a discussion on future research and the next steps to improve our understanding of persistent disadvantage.

All tables and figures prefixed with a “B”, along with the source data, are contained in an excel workbook, Disadvantage & how it persists 2023 – figures and tables.

2 Creating the datasets for our analysis

Key points

- Due to the lack of longitudinal data, we used a novel approach and constructed a dataset to measure persistent disadvantage. The datasets we used for this included the 2013 and 2018 Censuses and 2016–2021 Household Economic Survey data.
- We estimated the number of people experiencing being persistently deprived or excluded in 2013 and 2018. We were able to measure being persistently income poor in 2013 and 2018, and at one additional point in time between 2016–2021.
- We focused on people living in “peak working-age households” (with at least one adult aged 25–64) – referred to as “working-age households” throughout the report, and considered children as part of the household, rather than reporting on them separately. We assessed younger (aged 18–24) and older (aged 65+) households separately, because their experiences of disadvantage and persistent disadvantage were quite different to those of working-age households.
- We were limited to seven measures available in the Census data for assessing persistent disadvantage. As a result, we could not include some population groups or factors contributing to persistent disadvantage in our analysis.

This chapter provides a summary of how we constructed our own “longitudinal” dataset to assess persistent disadvantage in Aotearoa New Zealand, including the range of measures of disadvantage, personal and household characteristics. We also outline some of the data limitations that prevented us from including some population groups or factors contributing to disadvantage and persistent disadvantage.

A more detailed discussion of the methodology can be found in [Appendix A Technical details of our disadvantage and persistent disadvantage datasets](#). The working papers by Ta (forthcoming) and Riggs (forthcoming) also further expand on the methodology and analysis presented in this report.

2.1 Measuring disadvantage and persistent disadvantage

We created our own longitudinal dataset by linking 2013 and 2018 Census data with 2016–2021 Household Economic Survey (HES) data. We also linked administrative data from the Integrated Data Infrastructure (IDI) to each adult household member to construct a household equivalised disposable income measure.

[Table 13](#) shows the structure of the resulting dataset we used.

Persistent disadvantage was mostly measured at two points in time

The linked dataset was used to measure persistent disadvantage in all domains at two points in time in 2013 and 2018. We were able to measure being income poor at a third point in time over a five- to eight-year period using the 2016–2021 HES.

The combined datasets did not provide information about whether individuals or households were experiencing any disadvantage in the years between 2013 and 2018. This means that we cannot say if the people in the households were experiencing persistent disadvantage for the whole period we observed. Rather, we report on their recurrent periods or “spells” of disadvantage.

In [Chapter 4 Who experiences persistent disadvantage?](#), we also use cross-sectional data from the 2016–2021 HES and the 2014–2018 General Social Survey (GSS) to explore trends and experiences of disadvantage over time for people in working-age households, with a particular focus on population groups found to have experienced higher rates of persistent disadvantage.

Measuring being income poor, doing without, and being left out

We relied on existing measures within the 2013 and 2018 Censuses, the 2016–2021 HES and the 2014–2018 GSS to identify people who were experiencing disadvantage or persistent disadvantage. Within these datasets, we selected and categorised our initial set of measures for analysis based on the work of Saunders and colleagues on persistent disadvantage in Australia (Saunders et al., 2007; Saunders & Wong, 2012, 2014).

Being income poor

As discussed in [Chapter 1 Developing an understanding of persistent disadvantage](#), we adopted the accepted standard of <60% of the median household equivalised disposable income (HEDI) per person before housing costs as our measure for being income poor. We also used a <50% HEDI threshold to test the sensitivity of the income-poor measure.

Doing without

As outlined in [Chapter 1 Developing an understanding of persistent disadvantage](#), this concept focuses on the inability to acquire “essential” or basic goods and services that are considered part of “everyday” life in Aotearoa New Zealand, usually because of affordability. Because only two consistent measures were available in the 2013 and 2018 Censuses, we defined doing without or being deprived as living in an overcrowded household and/or having no heating in the household.

We also used a larger set of doing without measures in the HES dataset (15 in total) to broaden our understanding of New Zealanders’ experiences of doing without. See [Table 15](#).

Being left out

We used four measures from the 2013 and 2018 Censuses to assess whether people were persistently excluded in this report. These included whether an individual:

- lived in a jobless household
- had no high school (or other) qualifications in the household
- had no access to a motor vehicle
- had no internet access.

Although not having access to a motor vehicle or the internet might, on the face of it, seem more related to doing without, we have included them in this domain because not having them makes it harder for a person to access economic activities (such as jobs or education), services, (medical, dental, welfare) and community or social amenities (such as parks, exercise, clubs). Being excluded can also occur because of income poverty and deprivation. People may be excluded because they cannot afford to participate in activities, or because services are not available in their community.

We also drew on the HES (12 measures) and GSS (18 measures) to broaden our understanding of being excluded. See [Table 15](#) in Appendix A.

We focused on New Zealanders in peak working-age households

Most of our analysis is focused on households where at least one adult is aged 25–64, referred to as “peak working-age households” or, more simply, “working-age households”.⁷ We report separately on households where all the adults were aged 18–24 years old or all the adults were aged 65 years or over, because the disadvantage measures we selected were likely to overestimate their experience of disadvantage. For example, in households where all adults are aged 65+, it is common to be classified as being excluded because no one in the household is in paid work.

⁷ Note: in the interim report, we defined “working-age population” as aged 18–64, while Stats NZ typically identifies working-age population as encompassing people aged 15–64. Our focus on disadvantage has affected our definition.

We considered children as part of the household but did not report on them separately. This was avoid duplicating existing reporting on children and youth under the Child Poverty Reduction Act 2018,⁸ by the Child Poverty Monitor,⁹ and in reports produced by the Ministry of Social Development.¹⁰

The final linked dataset is representative of the Aotearoa New Zealand population and includes 4.55 million people (adults and children), of which 3.83 million were in our target population of people from working-age households.

Personal and household characteristics

We described patterns of persistent disadvantage across different personal or individual characteristics (age, gender, ethnicity,¹¹ and disability status). We also used the characteristics of the family or household they lived in (family type, household structure, housing tenure, household's highest qualification, household's working or labour-force status, and household geographical location). Table 16 in Appendix A provides a more detailed description of the selected characteristics.

Life events

Life events, such as being a victim of crime or finishing school and moving into the workforce, can be associated with a person experiencing persistent disadvantage. Unfortunately, the dataset we used could only identify a few key life events or life course transitions (such as retirement) that are likely to be associated with people entering or exiting disadvantage. Appendix A Technical details of our disadvantage and persistent disadvantage datasets, contains further discussion of the life events available across the datasets used in this report. The events analysed included a change in:

- employment status (employed or unemployed)
- housing tenure (renting or owning)
- relationship status (couple or sole parent)
- household type (couple, couple parent with dependent children, single household, etc)
- qualifications (from no qualifications to tertiary-level qualifications).

Determining who is experiencing disadvantage or persistent disadvantage

Determining who we consider to be at risk of experiencing disadvantage or persistent disadvantage is, by and large, a subjective judgement.

The definition of income poverty we use is a reasonable measure of people who do not have enough income to live on (Box 4). About three-quarters of people on the lowest incomes in Aotearoa New Zealand were defined as being income poor. When this group were asked whether they had enough income to live, slightly fewer (two-thirds) of them said they did not.

⁸ Stats NZ. (2023, March 23). Child poverty statistics: Year ended June 2022. Retrieved July 18, 2023, from www.stats.govt.nz/information-releases/child-poverty-statistics-year-ended-june-2022/

⁹ Child Poverty Monitor. (n.d.). Home page. Retrieved July 18, 2023, from www.childpoverty.org.nz/

¹⁰ Ministry of Social Development. (n.d.). Child Poverty in New Zealand. Retrieved July 18, 2023, from www.msd.govt.nz/about-msd-and-our-work/publications-resources/research/child-poverty-in-nz/index.html

¹¹ Individuals could select more than one ethnicity in the surveys used to create the dataset, which means an individual can be counted in more than one ethnic group and households could be composed of multiple ethnicities.

Having higher income does not necessarily mean a person is more likely to say they have adequate income. Over half of the people in the second-lowest income quintile – some of whom will be well above the threshold for being income poor – thought they had “not enough” or “only just enough” income. Clearly, other factors, hidden from our view, influenced people’s perception of whether they had sufficient income and were experiencing disadvantage.

Box 4. Perceptions of disadvantage can vary from persons to person

It is generally accepted that individuals have a “positive but modest association” between “objective” (or actual) and “subjective” (or perceived) income adequacy (Grable et al., 2013, p. 1109). We can demonstrate this in the Aotearoa New Zealand context using data from the HES. The HES collects details of a person’s actual household income, as well as asking them to assess how well their household income “meets [their] everyday needs for such things as accommodation, food, clothing and other necessities”. People can respond saying they have not enough money, only just enough money, enough money, or more than enough money.

Table 3 Actual income vs subjective income (HES 2019–2021 values)

Income (HES 2019–2021)	Adequacy of income to cover basics of accommodation, food, clothing, etc (%)			
	Not enough	Only just enough	Enough	More than enough
Lowest income quintile	24.8	36.0	30.4	8.9
2nd quintile	16.1	36.6	37.5	9.9
3rd quintile	9.5	30.6	44.4	15.6
4th quintile	4.8	22.1	48.4	24.8
Highest quintile	1.9	10.1	42.0	46.0

In [section 3.1 About one in five New Zealanders experienced persistent disadvantage](#), we report estimates showing that 16% of New Zealanders were at risk of being income poor using our objective measure of <60% of the median HEDI per person before housing costs. Most of these people would be in the lowest income quintile, which suggests that 78% of people in the lowest quintile (15.5% out of 20%) have sufficient income to live on. [Table 3](#) shows that, for people in the lowest quintile, 61% said their income was insufficient (“not enough” or “only just enough”), which is a percentage roughly similar to that produced by our income poverty threshold.

The income threshold of <60% of the median HEDI produced an average of 16% of the Aotearoa New Zealand working-age population experiencing income poverty. For consistency, we established thresholds comprising similar proportions of the population (~15–16%) in each of the two remaining disadvantage domains. This procedure has been used elsewhere, including by (Saunders et al., 2007). The threshold chosen for doing without was that at least one of the two measures applied (denoted as “1+/2” in our results). For being left out, we adopted a threshold of one or more of four measures (denoted as “1+/4” in our results). We undertook robustness checks using two or more measures out of four and found it did not make a significant difference to the results. We adopted the same “count” approach to establish thresholds of 15–16% for the expanded sets of measures available in the HES and GSS datasets.

2.2 How we examined disadvantage and persistent disadvantage

We conducted two types of analysis with our datasets

We used two different statistical techniques – descriptive analysis and regression analysis – to analyse our data.

Descriptive analysis summarises and describes the characteristics of the working-age household population and subgroups within the population without making any inferences or assumptions about the underlying relationships between or causes of what the analysis is showing. Descriptive analysis allowed us to identify patterns of disadvantage and persistent disadvantage and to explore their overall distribution among New Zealanders.

Regression analysis examines the relationship between a dependent variable and one or more independent variables to determine how changes in the independent variables are associated with changes in the dependent variable. The regression estimates the direction (positive or negative) and strength or significance of the relationships between the dependent and independent variables. Regression analysis also allows us to control for the effect of other factors to isolate the specific association of a particular factor with the dependent variable. As an example, we used a regression model to look at the relationship between being income poor (the dependent variable) and different personal and household characteristics (independent variable). The results of this analysis – including our finding that individuals who live in a household with no qualifications are more likely to experience poor income are set out in [Chapter 4 Who experiences persistent disadvantage?](#) and [Chapter 6 Connecting disadvantage, persistent disadvantage and wellbeing.](#)

We considered specific types and combinations of disadvantage and persistent disadvantage

We refer to types and combinations of disadvantage and persistent disadvantage¹² domains in a few different ways. Given we were limited to seven measures across three domains in the Censuses, we generally considered the domains individually, referring to them by name, and then in combinations, called:

- “simple persistent disadvantage” (persistent disadvantage in the same single domain)
- “complex persistent disadvantage” (persistent disadvantage in the same two, or all three, domains in both 2013 and 2018)
- “persistent disadvantage in one or more domains”.

Where the limited measures affected the results, we did not include doing without and being excluded domains separately.

Appendix A Technical details of our disadvantage and persistent disadvantage datasets provides more detail about the domains and combinations of domains considered in our analysis.

2.3 Key limitations

Because we organised Census and HES dataset by households, we could not analyse differences in how people experience persistent disadvantage based on their gender. While gender is included in the analysis of persistent disadvantage, it pertains to the composition of the household – that is, the number of males and females living there. However, using the GSS datasets, we have been able to provide some comment on gender differences with respect to temporary disadvantage and wellbeing in Chapter 4 Who experiences persistent disadvantage? and Chapter 6 Connecting disadvantage, persistent disadvantage and wellbeing.

Data limitations also meant that we were not able to identify everyone at risk of experiencing persistent disadvantage or other relevant factors because:

- people experiencing persistent disadvantage are more likely to be missing from survey and administrative data
- some communities or population groups are not well represented in the data we used
- we did not have sufficient measures to consider disadvantage from a Māori perspective
- we could not measure some factors contributing to disadvantage, such as service access or wealth.

These aspects are expanded below.

¹² In the labels for the tables and figures that follow, we abbreviate persistent disadvantage as “PD”, and temporary disadvantage as “D”.

People experiencing persistent disadvantage were more likely to be missing from survey and administrative data

Collecting information about the lives and circumstances of people experiencing persistent disadvantage can be challenging. The reasons include being hard to contact or more likely to drop out of a study (for example, due to regular address changes), or not being eligible to be included in the first place (McLachlan et al., 2013). The result is that disadvantage and persistent disadvantage are likely to be underestimated. For example, in Aotearoa New Zealand, many of Stats NZ's household surveys (including the HES and GSS) exclude people living in non-private dwellings such as hotels, motels, boarding houses, hostels, and homes for the elderly.¹³ Some of these dwellings are commonly used to provide emergency accommodation for vulnerable populations.

Data limitations were raised by some submitters – in particular, the difficulty of collecting information from people who do not speak English, such as refugee migrants (see subs. DR095, 119, and 150).

According to our information, there is no comprehensive database on the number of refugee background communities in Aotearoa. In addition, there is not enough data and research on how well the communities are doing in all areas of their life. The lack of data creates an environment where community members become invisible and continue to be disadvantaged.

(sub. DR150, p. 2)

Alongside Census and survey data, administrative data can also be an important source of information on the circumstances and life courses of people who are most disadvantaged (McLachlan et al., 2013). For example, we used administrative data to construct our income measure based on HEDI. Other administrative data collected from the delivery of social welfare benefits, payments and services, health and medical care, and programmes to support children can provide valuable insights into the needs of those experiencing persistent disadvantage.

However, people experiencing persistent disadvantage may not appear in administrative data if they are not accessing services or receiving support from government or other social service providers. In addition, administrative data may not be a reliable source of information about whether an individual is no longer experiencing disadvantage. An individual may no longer be using a service or receiving support, not because they are no longer experiencing disadvantage, but because they are no longer able to access help.

There is also a recognised risk that the increasing reliance on the internet and digital devices to access services will make it harder for people experiencing persistent disadvantage to make use of the services (New Zealand Government, 2020; subs. DR130, 136 and 142).

¹³ Stats NZ. (n.d.). General Social Survey target population. Retrieved July 18, 2023, from <https://datainfolplus.stats.govt.nz/item/nz.govt.stats/c6839a4f-5b58-4a99-a1fe-37366835b7b2/3>

A further downside of administrative data is that there is often limited personal and (particularly) household information collected at the same time. It is also not usually possible to tell whether an individual or household that stops using a service or receiving a benefit does so because they are no longer experiencing persistent disadvantage, or because of a barrier created by the system. For example, evidence suggests that relationship rules within the welfare system discourage the formation of two-parent family units by presuming full financial dependence on a partner from early on in a relationship (Neuwelt-Kearns et al., 2021). Where a sole parent chooses to become part of two-parent family or a disabled person partners with someone, they are likely to “disappear” from the administrative data, even though they may still be experiencing disadvantage or even persistent disadvantage.

Some communities or population groups were not well-represented in the data we used

It was not possible to report on all types of communities who were identified by submitters to the inquiry as being at risk of experiencing persistent disadvantage. This was because the community was too small to be confidently estimated in the survey data, or it was not possible to identify a specific community because of insufficient information. These communities included specific ethnicities within the Pacific and Asian populations (such as Tongan, Chinese, or Indian Asian), and specific groups of disabled people, rainbow communities and others identified by submitters to our interim report such as:

- ethnic minorities, refugee communities, and people with limited English proficiency (subs. DR95, 119, 150)
- neurodiverse people (subs. DR145, 101, 100)
- people with mental health and/or addiction issues (subs. DR135, 122, 109, 108)
- people who are digitally excluded (subs. DR130, 136, 140, 142).

A recent survey of rainbow rangatahi described some of the challenges that result from a lack of robust data.

While we know, anecdotally, that rainbow marginalisation is pervasive, there is a dearth of research or statistics that detail issues faced by rainbow young people, particularly among younger populations. This gap in the research helps make young rainbow people invisible. Without these insights, it is difficult to accurately account for the experiences of rainbow young people, provide necessary resources, and adequately respond to their needs. (Fenaughty et al., 2022, p. 2)

Box 10 in Appendix A provides examples of how some of the population groups we have not reported on may be at more risk of experiencing disadvantage and persistent disadvantage.

We did not have sufficient measures to consider disadvantage from a Māori perspective

We acknowledge that many of the measures used are “incapable of integrating mātauranga Māori sourced understandings of wellbeing while retaining the integrity of Māori worldviews” (McMeeking et al., 2019, p. 36). Te Puni Kōkiri and Treasury have been working to identify indicators for measuring the state of wellbeing in accordance with He Ara Waiora that could be used in the future.

People are disconnected culturally, socially, and linguistically from a base, this is what leads to all the symptomatic issues that are seen in society, such as mental health issues, and alcohol and drug addiction... underneath these symptoms are a driving cause, which is that people feel disconnected, they don't have a sense of identity.

(Wananga participant, Haemata Limited, 2021, p. 9)

We couldn't measure some factors contributing to disadvantage

Some aspects of being excluded are missing from the data readily available for this report. These include being excluded because of a lack of access to services and support (or “service exclusion”), wealth, and participation in their local community and public engagement. With reference to wealth, we did include housing tenure, which distinguishes people in households who were renting versus people in households who owned their home. In Aotearoa New Zealand, owning your own home is one indication of “accumulated” wealth, but we did not have the resources to develop the analysis of other forms of wealth for this report.

In some cases, we used proxies for service exclusion, but these focused on being excluded due to the cost of service, rather than other factors affecting access to services. We also identified other potential measures both in the GSS and other administrative data that we did not have the resources to analyse for this report. These are described in [Appendix A Technical details of our disadvantage and persistent disadvantage datasets.](#)

3 Persistent disadvantage in Aotearoa New Zealand

Key points

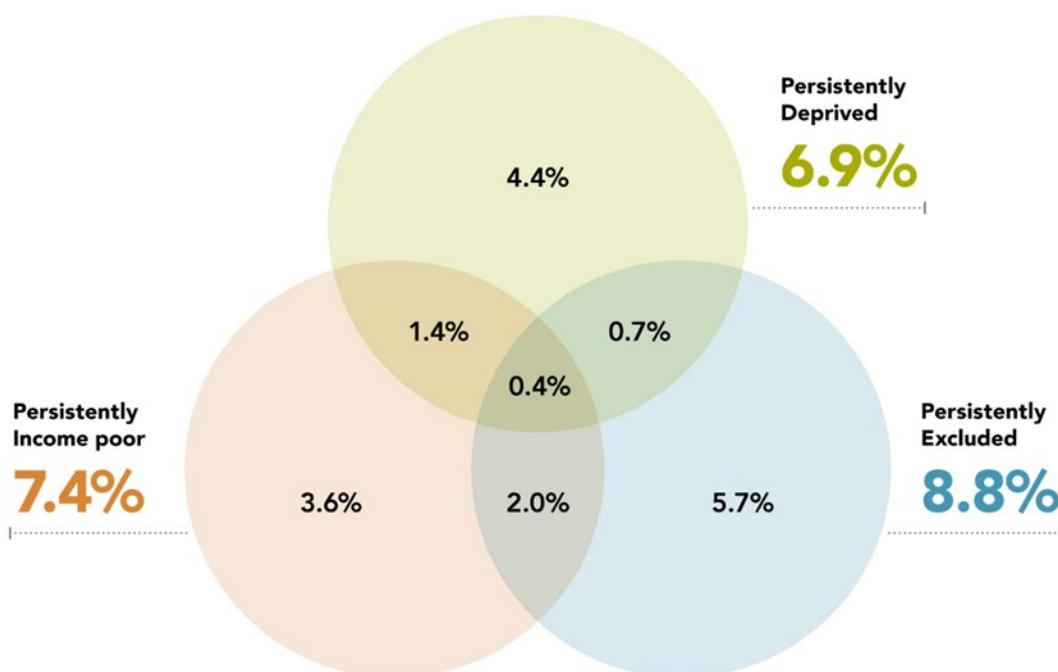
- Based on our limited set of measures, about 18.2% of New Zealanders (697,000 people) from working-age households were persistently disadvantaged in one or more domains in both 2013 and 2018.
- Of these, 4.5% (172,000 people) experienced persistent disadvantage in two or three domains.
- Just over half of people experiencing persistent disadvantage in two or more domains were Māori (55,000) or Pacific peoples (50,000).
- Individuals experiencing persistent disadvantage showed evidence of disadvantage on a wide range of measures. The frequency of reporting such measures increased as the complexity or number of spells of disadvantage increased.
- About 5% of all individuals in working-age households experienced being income poor at three points in time, either between 2013 and 2018 or between 2013 and 2019–2021. A further 24% were sometimes income poor and sometimes not.

This chapter describes the incidence of persistent disadvantage in Aotearoa New Zealand and identifies the factors contributing to the experience of disadvantage.

3.1 About one in five New Zealanders experienced persistent disadvantage

About one in five people (18% or 697,000) in working-age households experienced persistent disadvantage in one or more domains in 2013 and 2018. [Figure 3](#) presents the percentage of people who experienced persistent disadvantage in one or more domains.

Figure 3 Persistent disadvantage across three domains (using seven measures) in 2013 and 2018



Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data.

Notes:

1. Income poor = <60% of household equivalised disposable income before housing costs (abbreviated as <60% HEDI).
2. Deprived = one or both of housing related measures: no heating/fuels and overcrowded household.
3. Excluded = one or more of four measures: no employment income in household, no (high school) qualifications in household, no internet, no motor vehicles available for household use.

Most people were persistently disadvantaged in only one domain (13.7% or 525,000 people). About 4.5% (172,000 people) experienced complex persistent disadvantage (in two or more domains). Of these, 55,000 were Māori and 50,000 were Pacific peoples. Only 0.4% of people (15,500) experienced persistent disadvantage in all three domains.

Being income poor or in an overcrowded household were the most common reasons for people experiencing persistent disadvantage

Table 4 summarises the different measures that contributed to being persistently disadvantaged across the three domains. Living in an overcrowded household¹⁴ was more likely to contribute to a person experiencing being deprived than having no heating or fuel available to keep their living space warm. Being excluded was mainly explained by having no job, no qualifications, and/or no internet in the household. Most people had access to a motor vehicle, with only 1.5% of people in working-age households reported as not having access to a vehicle in both years.

Table 4 Prevalence of measures contributing to disadvantage and persistent disadvantage in both Censuses

Domain / type	Measure / domain	Working-age households			All individuals			
		In Census year	2013 only (%)	2018 only (%)	Both years (%)	2013 only (%)	2018 only (%)	Both years (%)
Income poor	<60% HEDI		16.2	15.5	7.4	18.2	19.2	9.1
Deprived	No heating/fuels		3.3	4.0	1.0	3.2	3.9	0.9
	Overcrowded HH		15.0	9.9	5.5	13.3	9.0	4.7
	Deprived (1 or both measures)		17.0	12.6	6.9	15.3	11.7	6.1
Excluded	No job in HH		6.4	5.4	2.6	6.5	4.9	2.3
	No qualifications in HH		6.4	4.7	2.7	8.1	4.2	2.5
	No internet		11.1	6.6	3.4	12.8	8.1	4.8
	No motor vehicles		3.3	2.7	1.4	3.7	3.4	1.7
	Excluded (1 or more measures)		19.5	14.8	8.8	22.2	16.0	10.2

Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data.

¹⁴ We use the measure used by Stats NZ, which is the Canadian National Occupancy Standard (CNOS). This measure calculates the number of bedrooms needed based on the demographic composition of the household. It presumes that there should be no more than two people to a bedroom, but that couples and children of certain ages can share a bedroom.

Experiencing disadvantage declined between 2013 and 2018

Table 4 shows that disadvantage declined across the three domains between 2013 and 2018, except for no heating. The decline in experiencing income poverty and being deprived matches trends in material hardship over the same period (Perry, 2019).

The decline could potentially be explained by Aotearoa New Zealand's economy, which was growing during this period as it recovered from the Global Financial Crisis. This growth was driven largely by increasing employment (and falling unemployment), rather than productivity growth (NZPC, 2023b).

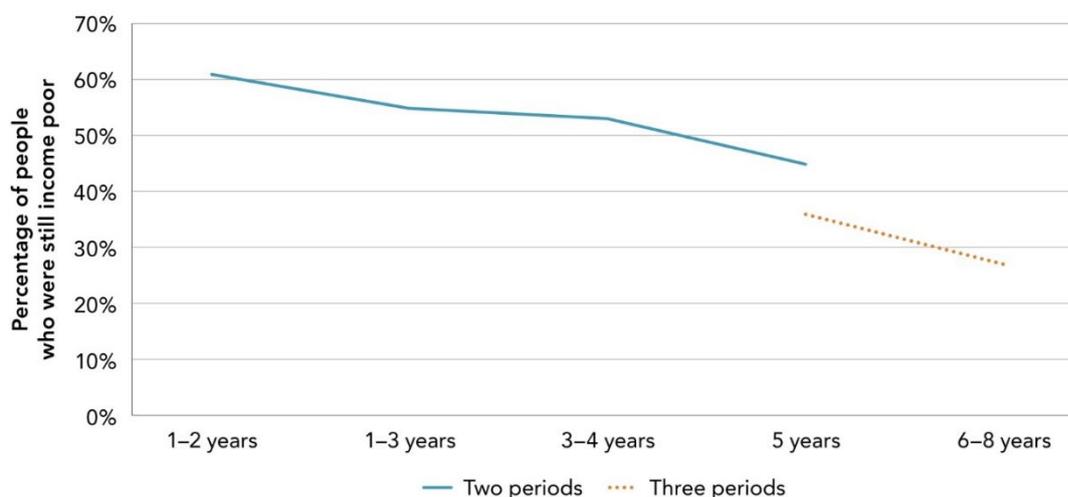
Another cause of the decline in disadvantage is potentially due to our sample of people, which increased in age by five years (the dataset only includes people responding in both 2013 and 2018). Older people were less likely to live in an overcrowded household. In 2013, 30% of children aged under 5 years lived in overcrowded households, compared to 21% of children aged 5–12 years, just over 10% of people aged 18–44 years, and less than 10% of people aged 45 years and over (Ta, forthcoming).

As it is not easy to disaggregate the time trend vs the ageing effect in our analysis, we cannot confidently say how each may have affected it.

3.2 Many people living in income poor households in 2013 remained income poor over time

Of the 16% of people living in income-poor households in 2013, just under half (45%) were living in an income-poor household 5 years later (in 2018), and around a third (27–36%) 5–8 years later (Figure 4).

Figure 4 Percentage of people still income poor



Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data and the 2016–2021 HES (see Table B1 in Excel workbook for more data).

Carter & Gunasekara (2012) found similar income-poverty persistence using income data from the first seven years of the Stats NZ Survey of Families, Income and Employment (SOFIE) from 2002–2009. In any given year, approximately 25% of the population was reported as being income poor. About 50% of these people were in their first and only year of being income poor, 29% were experiencing their second year of being income poor, and 24% experienced three or more years of being income poor.

3.3 People experiencing persistent disadvantage had other evidence of disadvantage

We explored the likelihood that people experiencing persistent disadvantage using the seven measures we had for 2013 and 2018 were also experiencing disadvantage using 28 measures of being excluded or deprived from the 2016–2021 HES (see Table B2 and Table B3).¹⁵ We found that as the number of spells and/or complexity of disadvantage increased, people in working-age households reported progressively higher rates of experiencing the other HES measures. For example, people experiencing complex persistent disadvantage commonly reported experiencing the various HES measures at 5 to 15 times the rate of those who never experienced disadvantage, and at least twice the rate of those who experienced disadvantage in either 2013 or 2018.

Most commonly reported measures of being deprived

The most reported measures of being deprived in the HES were the same whether people experienced no or any type of disadvantage or persistent disadvantage: major problems heating home in the winter, having no home content insurance, buying less meat than they would like to, feeling limited by money in buying clothes/shoes for self, and being unable to pay \$500 unexpected expenses. Living in overcrowded households was a more commonly reported measure for people experiencing any type of disadvantage or persistent disadvantage than for those who never experienced disadvantage.

¹⁵ All Table B# and Figure B# are found in [Disadvantage & how it persists 2023 – figures and tables](#)

Most commonly reported measures of being excluded

Measures of being excluded showed a different pattern to measures of being deprived. All such measures were reported at increasingly higher rates by people experiencing simple or complex persistent disadvantage compared to people experiencing no disadvantage, or who experienced disadvantage at one point in time. Different measures featured for people in households experiencing simple or complex persistent disadvantage.

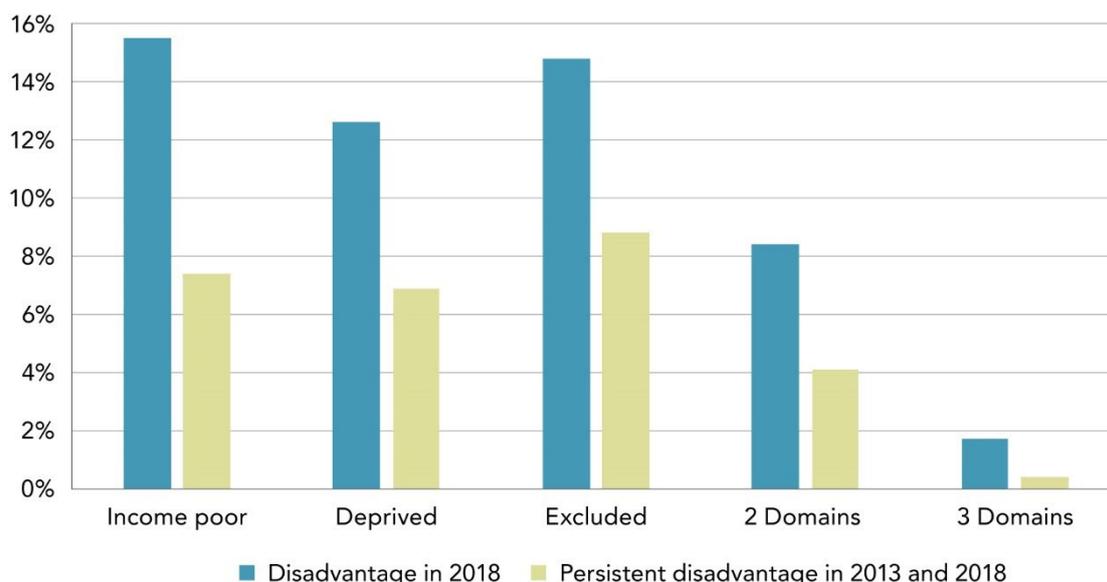
The most reported excluded measures by people in households experiencing simple or complex persistent disadvantage were inadequate income to cover basic needs, no computer with internet access, no job in household, no high school qualification in household, and no access to a car or van.

By contrast, the most reported measures by people who never experienced disadvantage, or only experienced it in one year, were having inadequate income to cover basic needs, postponing visits to the doctor, doing without / cutting back on trips to shops and local places, and borrowing money from family in the last 12 months.

3.4 Disadvantage occurred at higher rates than persistent disadvantage

Given our focus on breaking the cycle of persistent disadvantage, we have not undertaken a detailed analysis of disadvantage occurring year to year. However, for the purpose of comparison with our analysis of persistent disadvantage, we used the 2018 Census data to identify people who were experiencing disadvantage in one or more domains.

Figure 5 Prevalence of disadvantage and persistent disadvantage by domain



Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data.

Notes: Estimates for disadvantage are derived using the 2018 Census data.

As can be seen in [Figure 5](#), the rates of people in working-age households experiencing disadvantage in one domain, two domains, or all three domains is generally twice that of those experiencing persistent disadvantage in the same domains.

We also used the 2016–2021 HES to examine trends in temporary disadvantage across the three domains over six years (refer Figure B1). This confirmed that disadvantage in any one or more domains occurred at about double the rate of persistent disadvantage.

The rate of disadvantage, whether experienced in one domain or over more domains remained consistent in that six-year period.¹⁶ This pattern is replicated in reporting of both wellbeing and child poverty indicators by Stats NZ.¹⁷

¹⁶ However, this finding is limited by data availability, and it may not hold over longer periods or, for example, through economic downturns.

¹⁷ Stats NZ. (n.d.) Ngā Tūtohu Aotearoa | Indicators Aotearoa New Zealand. Wellbeing data for New Zealanders. Retrieved July 28, 2023, from https://statisticsnz.shinyapps.io/wellbeingindicators/ w_fcc7ee1d/?page=indicators&class=Economic&type=Economic%20standard%20of%20living%20

4 Who experiences persistent disadvantage?

Key points

- Some population groups experience disproportionately high rates of persistent disadvantage compared with all individuals from the working-age population.
 - Public renters, people from jobless households, and people from households with no high school qualifications experienced some form of persistent disadvantage at rates that were about three to seven times higher.
 - Public renters, disabled people, and people from sole parent families had very high rates of being **persistently excluded**.
 - Public renters and Pacific people were four times more likely to be **persistently deprived**.
 - **Persistent income poverty** was highest for public renters, sole parents, people from households with no qualifications, and non-Europeans.
- Of sole parent families, Māori and Pacific people, those who were also jobless, public renters and/or not qualified, experienced even higher rates of persistent disadvantage.
- The Pacific population is younger and more urban, and this, alongside cultural preferences (such as for multi-generational living), might help explain some of their high rates of persistent disadvantage.
- People living in Asian households experienced persistent disadvantage at lower rates than any other population group.
- Persistent disadvantage was concentrated in parts of the North Island, with the highest incidence occurring in Counties Manukau District Health Board region.
- Compared with people in working-age households, people from households with all adults aged 65+ years were less likely to experience disadvantage and persistent disadvantage – something that may change in future, given falling home ownership rates.
- People from households where all adults were aged 18–24 years were more likely to experience disadvantage but less likely to experience persistent disadvantage.
- The population groups that experienced persistent disadvantage at higher rates were also the groups that experienced higher rates of disadvantage.
- Logistic regression analysis confirmed family type (including whether children under 18 years were present in the household), disability, and housing tenure differences as being statistically significant characteristics in explaining who experienced persistent disadvantage, holding other characteristics (such as ethnicity) constant.

This chapter describes the prevalence and distribution of persistent disadvantage across the working-age population, as well as using regression analysis to explore how the household and personal characteristics were associated with disadvantage and each other, to help explain why certain population groups were more likely than others to experience persistent disadvantage.

4.1 Population groups experiencing the highest rates and likelihood of persistent disadvantage

Incidence and distribution of persistent disadvantage

We examined the incidence and distribution of persistent disadvantage within the set of personal and household characteristics we had available ([Table 16](#)), to determine what population groups were at most risk of experiencing different disadvantage domains and persistent disadvantage. It is important to note that the relationships identified are associative not causal. They should not be interpreted as saying a particular characteristic caused someone to be disadvantaged. For example, public housing is allocated based on income, savings, and other need, so the relationship between disadvantage and public housing is true by design, in the same way that being jobless is related to having low levels of income.

The population groups we report on were not always discrete and may overlap. For example, many Pacific people were living in social housing and were therefore public renters; many sole parent households were also jobless households. In what follows, we also undertook logistic regression analysis (or multivariate statistical analysis) to better understand these interactions.

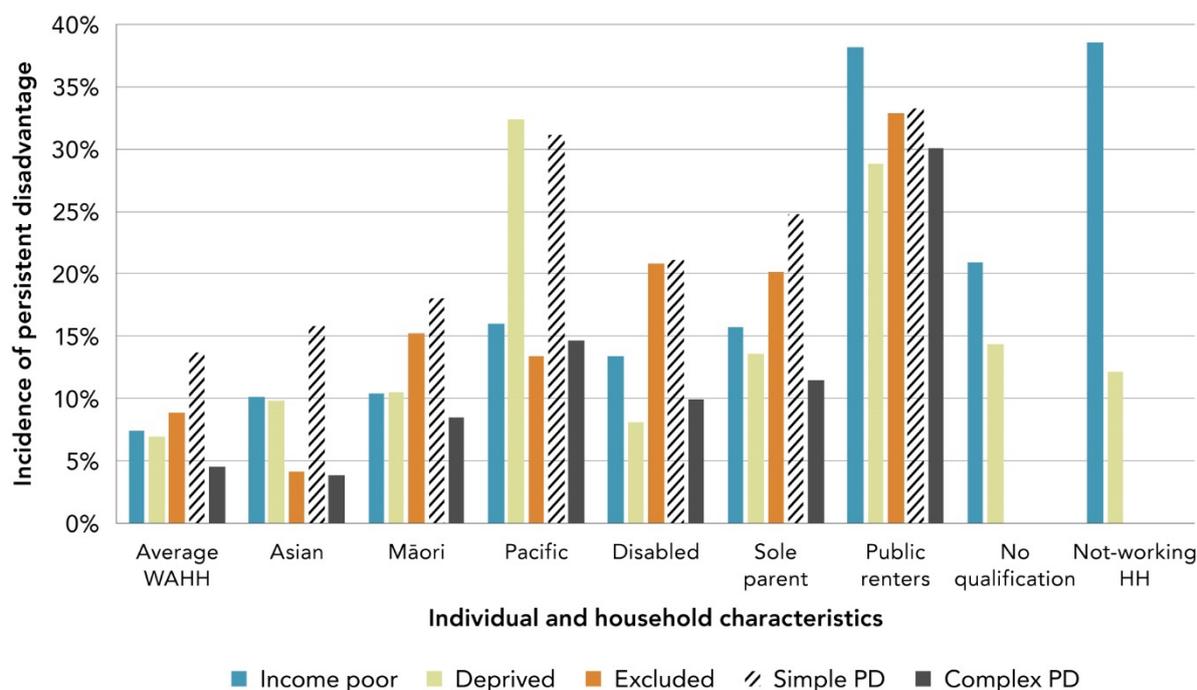
On average, current-day New Zealanders are healthier, better educated, have higher incomes, and live in communities with less crime than previous generations. However, this aggregate story conceals significant differences in wellbeing – demographically, geographically and intergenerationally (NZPC, 2022a; The Treasury, 2022c).

[Figure 6](#) compares the incidence or rates of different types of persistent disadvantage of the population groups we found at most risk of experiencing persistent disadvantage (namely, people living in households of Māori, Pacific, Asian, sole parents, not working (jobless), disabled people, or with no qualifications)¹⁸ to all working-age households. If the incidence of persistent disadvantage of a group outweighs the corresponding rate of the entire working-age household population (“average WAHH” in the figures and tables that follow), the group is more likely to experience that type of persistent disadvantage than people in the average working-age household.

¹⁸ Individuals could select more than one ethnicity, and households could be composed of people of various ethnicities. Hence, when we refer to a “Pacific household”, “Māori household”, “Asian household” or “European household” we mean a household where at least one individual has identified themselves as being of that ethnicity.

Around 5% of working-age householders rented social housing.¹⁹ Public renters experienced the highest rates of any type of persistent disadvantage. People living in sole parent households (9.5% of all working-age households), or Pacific households (9% of all working-age households) experienced the next highest rates across all types of persistent disadvantage.

Figure 6 Incidence and distribution of experiencing persistent disadvantage for specific population groups



Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data (see Table B4a for more data).

Notes: Given “jobless household” and “no household qualification” are two of four input measures to construct the dependent measure “Excluded” (as with “Simple PD” and “Complex PD”), we do not report on the incidence of these two population groups experiencing exclusion, simple or complex PD.

Public renters and people living in no qualification households (6% of all working-age households) experienced the highest rates of persistent income poverty of all the population groups identified here. Public renters, people in disabled households (4% of all working-age households) or sole parent households experienced the highest rates of being persistently excluded. Public renters and people living in Pacific households experienced the highest rates of being persistently deprived or simple persistent disadvantage, while public renters experienced the highest rates of complex persistent disadvantage.

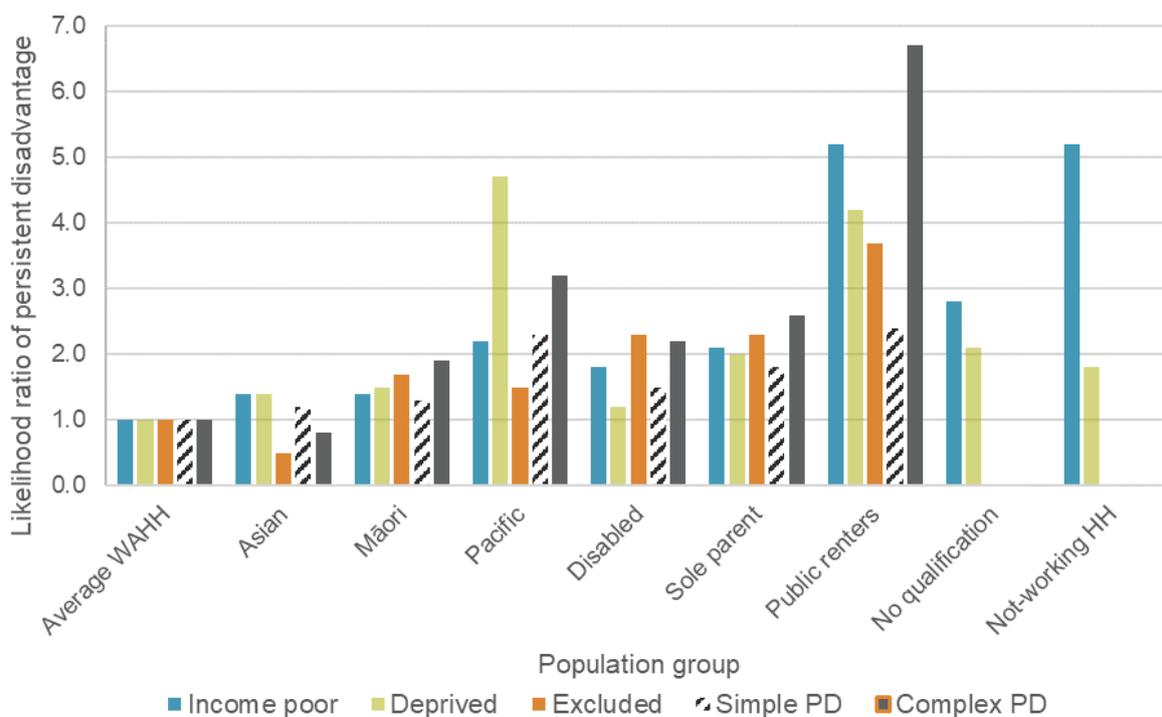
¹⁹ If the respondent does not own the home, the respondent is asked about the owner of the dwelling. We classify renters in social housing as those responding that the dwelling is owned by a local authority, city council, Housing New Zealand Corporation (now known as Kāinga Ora), other state-owned corporation, state-owned enterprise, government department or ministry.

People living in Asian households (18% of all working-age households) generally experienced persistent disadvantage at lower rates than other population or ethnic groups, and they experienced being excluded or complex persistent disadvantage at lower rates than the average of all working-age households.

The relative risk of experiencing persistent disadvantage among these same population groups

Because each of the outcomes shown in [Figure 6](#) are not equally as common, it is useful also to consider the incidence of an outcome for a section of the population relative to the population as a whole. This is known as the “relative risk”, or “likelihood ratio” ([Figure 7](#)). It is calculated by dividing the rate of incidence in a particular population group by the incidence rate for all working age households.

Figure 7 Relative risk of experiencing persistent disadvantage by specific population groups



Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data (see Table B4b for more data)

Notes: “Likelihood ratio” denotes the probability of experiencing persistent disadvantage for people with the characteristic, relative to the reference category, holding all else equal. A likelihood ratio of greater than one means that people with the characteristic are more likely to experience persistent disadvantage than the reference category. A likelihood less than one means they are less likely.

A likelihood ratio above one therefore means a population group is more likely to experience persistent disadvantage (than an average working-age household). Conversely, if the ratio is below one, they are less likely to experience it. For example, 39% of people living in a not-working / jobless household experienced persistent income poverty, compared to 7% of people in all working-age households. This produces a likelihood ratio of 5.2, which means someone in a jobless household is 5.2 times more likely to experience persistent income poverty compared to someone in an average working-age household.

Figure 7 shows that people living in public rental accommodation were 6.7 times more likely to experience complex persistent disadvantage, than people living in an average working-age household. People living in sole-parent family or Pacific households experienced complex persistent disadvantage at rates of 2.5 to three times higher, while people in Māori and disabled people households were about two times more likely to experience complex persistent disadvantage. In all cases, the risk of these groups relative to the average working-age household was much higher for complex persistent disadvantage than simple persistent disadvantage. For example, people in public renter households were around 2.5 times more likely to experience simple persistent disadvantage than the average working-age household, but almost seven times as likely to experience complex persistent disadvantage.

People in public-renter, disabled-people and sole-parent households experienced very high rates of being persistently excluded (2.3 to 3.7 times the average). People in public renter and Pacific households were also four times more likely to be persistently deprived than people in average working-age households. People from sole-parent families and households without qualifications were twice as likely to be persistently deprived.

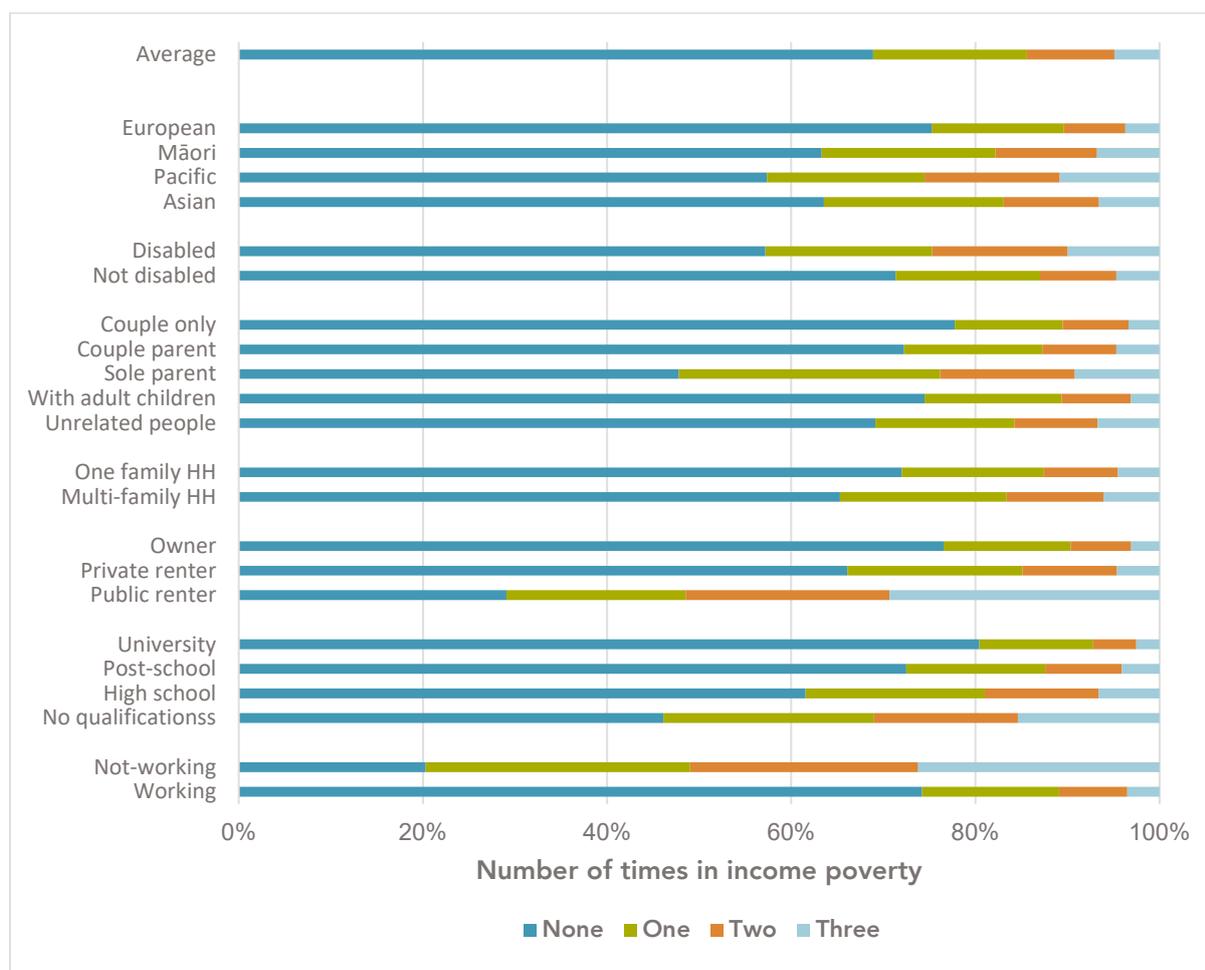
People in Asian households had a similar or sometimes lower risk of experiencing persistent disadvantage than an average working-age household. They were slightly more at risk of being income poor and being deprived (1.4 times higher than average), but half as likely to be excluded (0.5 times higher).

4.2 Extending the time frame produced similar results for persistent income poverty

Adding a third point in time to the analysis of being persistently income poor did not change the overall findings with respect to the characteristics of the people and households who experienced persistent disadvantage at two points in time.

As Figure 8 shows, people living in Pacific, disabled-people, sole-parent, public-renter, no-qualification, and jobless (not-working) households were more likely to be income poor at two or three points in time, compared to the average working-age household or any other type of household.

Figure 8 Proportion of people having temporary and persistent income poverty



Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data and 2016–2021 HES.

Notes: Initial characteristics in 2013 Census except for disability, which was gathered in 2018 Census.

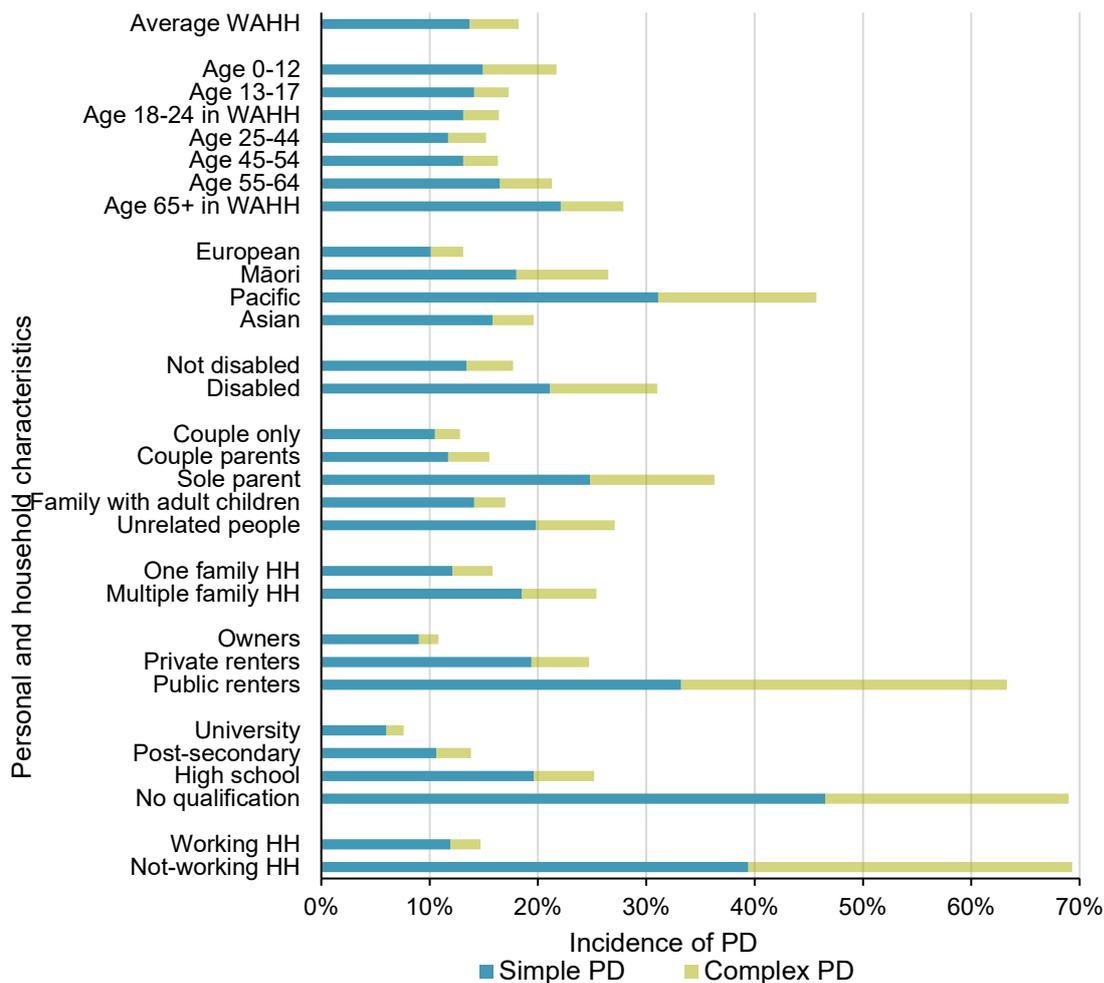
People living in households with university qualifications were the least likely to experience being persistently income poor two or more times (7%), followed by people living in households of parents with adult children (11%), working households (11%) and European households (10%).

4.3 Personal and household characteristics affected the risk of people experiencing persistent disadvantage

We undertook further descriptive and logistic regression analysis of personal and household characteristics to better understand how an individual or household was at risk of experiencing different types of persistent disadvantage.

Figure 9 and Figure B2 split the working-age population into subgroups by each characteristic (age, household type, housing tenure, work status) to show what proportion of the subgroup experienced persistent income poverty, being excluded or deprived (Figure B2) or simple or complex persistent disadvantage (Figure 9). Table B5 shows both the incidence and likelihood ratios for the same set of data contained in Figure 9 and Figure B2, and Table B6 contains the output of the logistic regression analysing the likelihood of experiencing persistent disadvantage by personal and household characteristics for all individuals in working-age households.

Figure 9 Rates of experiencing simple or complex persistent disadvantage by personal and household characteristics



Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data (see Table B5 for more data).

Notes:

1. The horizontal bars depict the percentage of people with each characteristic with either simple (blue) or complex (green) persistent disadvantage. The combination of the blue and green bars represents the total percentage of people with that characteristic experiencing simple or complex persistent disadvantage.
2. The categories are age, ethnicity, disability, household type, single or multiple family, household tenure (owner or renter), qualifications and work status. Except for ethnicity (where people could select more than one), each category adds up to 100% of WAHH population.
3. The remaining people (100 minus the total of blue and green bars) do not experience any persistent disadvantage.

Ethnicity alone does not explain why some ethnic groups are more likely to experience persistent disadvantage

As highlighted in preceding sections, people living in Māori and Pacific households were more likely to experience any type of persistent disadvantage compared to Asian, European, or all working-age households. People in Pacific households typically experienced much higher rates of persistent disadvantage than those in Māori households. For example, people in a Pacific household were 2.2 times more likely to experience persistent income poverty and 4.7 times more likely to be persistently deprived, compared to around 1.4 times for the same types of persistent disadvantage for people in Māori (and Asian) households.

Some of the differences between ethnic groups in their rate and likelihood of experiencing disadvantage can be explained by differences in their personal and household characteristics, such as their age, disability status, gender, family type, housing tenure, and geographical location.

We undertook logistic regression analysis to better understand the relationship of various personal and household characteristics with persistent disadvantage. This estimated the probability of a household experiencing each type of disadvantage as a function of a range of personal and household characteristics with disadvantage outcomes. Because it is difficult to isolate the separate influences of characteristics that are highly correlated with each other, we undertook this analysis in a stepped, or iterative way. First, we examined the relationship between the likelihood of experiencing persistent disadvantage as a function of age, gender, ethnicity, and disability status (iteration 1). We found the relationship between ethnicity and, persistent income poverty or complex persistent disadvantage remained significant for people living in European, Māori, and Pacific households, even when one accounted for any differences in age, gender or disability status of each group.

However, once we also controlled for the additional characteristics of household type, housing tenure, multiple vs single family household, and geographical location (iteration 2 of Table B6), people in Māori or Pacific households were not significantly more (or less) likely to be persistently income poor than people in non-Māori or non-Pacific households. Nor were people in Pacific households more likely than those in non-Pacific households to be persistently excluded, although they were more likely to experience persistent deprivation. People in Asian households were more likely to be persistently income poor, and less likely to experience persistent exclusion, relative to people in non-Asian households. People in European households were significantly less likely to be persistently deprived or excluded.

The logistic regression results reflect, in part, the fact that Māori and Pacific populations were younger than the average, and sole parents, renters, and people with no formal education or in jobless households were overrepresented in these populations. In contrast, Asians lived in households with higher household qualifications and were more likely to be in a working household, compared to other ethnic groups (Table B7).

Box 5 provides an insight into why people in Pacific households may experience different patterns of persistent disadvantage, compared with other ethnic or population groups.

Box 5. The Pacific population differs from the average New Zealand population

In our descriptive analysis, we found Pacific people experienced higher risk of disadvantage and persistent disadvantage compared with other New Zealanders. However, as shown in Table B6, once we controlled for various personal and household characteristics in the logistic regression, people in Pacific households were no more likely than non-Pacific households to be persistently income poor or excluded. In other words, personal and household characteristics were of greater significance in explaining Pacific people's experience of persistent disadvantage than ethnicity per se.

This is borne out when we take a closer look at the unique characteristics of the Pacific population in Aotearoa New Zealand. The Pacific population is younger and more likely to live in the urban areas of Auckland, when compared with the total Aotearoa New Zealand population. Young Pacific people (aged 0–29 years) made up 61% of the total Pacific population in 2018 compared to 40% for the total New Zealand population (New Zealand Treasury, 2023). Table B7 shows that Pacific people were also concentrated in Auckland (mostly in South Auckland), with two out of three working-age households living there.

Pacific people tend to live in larger household groups than the rest of the Aotearoa New Zealand population. In 2018, over half (53%) of Pacific households comprised five or more people, compared with 19% of all New Zealand households (Stats NZ, 2023). In 2018, almost one-third of Pacific people aged 25–29 years still lived in their family home in 2018. This is about double the rate for European or Asian young people. In 2018, about 20% of Pacific people lived in households with two or more families, with or without other non-family members, compared with about 3% of the total New Zealand population (Stats NZ, 2020).

Some of the reasons for this may be cultural, others may be due to family circumstances, including experiencing some form of disadvantage.

Irrespective of their ethnicity, younger people, particularly those aged 18–24 years, are more likely to be income poor and have fewer educational qualifications than the working age population (see [Box 6](#)). As seen in Table B7, people in Pacific households were much more likely to only have high school qualifications (41%) and much less likely to have university qualifications than people in European or Asian households.

Younger people are generally more likely to be renters rather homeowners. People living in Auckland pay some of the highest rents in Aotearoa New Zealand (NZ Herald, 2023), which can lead to overcrowding, because families cannot afford larger homes or larger homes may not be available. Stats NZ (2023) reported that in 2018, only 4.4% of non-owner-occupied dwellings (public and private rentals) had five or more bedrooms. This is particularly relevant for Pacific peoples, of which an estimated 4 in 10 people lived in crowded households (mostly in Auckland), compared with about 1 in 10 for the total population (Stats NZ, 2020).

As observed by Stats NZ (2023), “the youthfulness of the Pacific population in New Zealand is important to remember when looking at information around topics such as income, employment, home ownership, and wealth, which tend to increase as people reach the age of 40 or 50 years” (p. 15). It is perhaps not surprising we found that the Pacific population had significantly higher rates of renting (often in public housing), living in crowded homes, and persistent disadvantage, particularly in the domains of being income poor or deprived (where one measure is overcrowded household).

People in disabled-people households experienced higher rates of persistent disadvantage

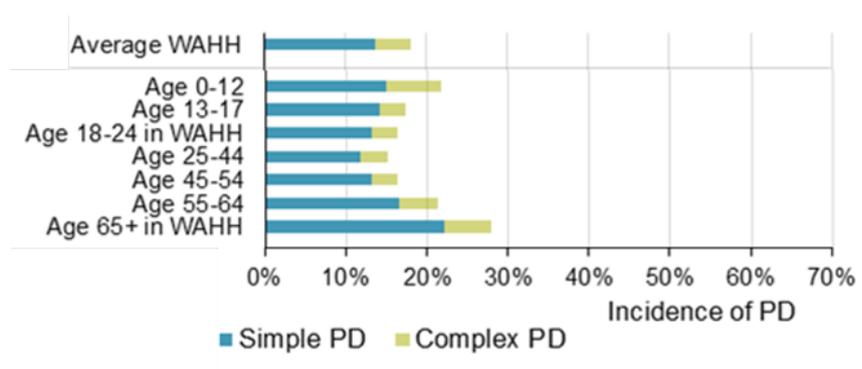
People in households where at least one individual was disabled (“disabled-people households”) experienced persistent income poverty, exclusion, simple, or complex persistent disadvantage at about twice the rate of people in average working-age households. The rates of people in disabled-people households being persistently deprived are not different from those in non-disabled-people households, or in average working-age households.

When we controlled for age, gender, ethnicity, and disability status or for the larger range of personal and household characteristics in the logistic regression, living in a disabled-people household remained a significant explanatory factor for experiencing persistent income poverty, exclusion, simple or complex persistent disadvantage. Interestingly, when we included household qualifications and household workforce status (iteration 3) in the regression for persistent income poverty, living in a disabled-people household was no longer significant.

The age composition of households influenced the experience of persistent disadvantage

As shown in Figure 9a below, among all people in working-age households, people in households with children aged 0–13 years, or with at least one adult aged 55 years or older, had a higher likelihood of experiencing any type of persistent disadvantage, except being persistently excluded, than other age groups.²⁰ People aged 25–44 years in working-age households were less likely than people in any other age groups or the average working-age household to experience persistent disadvantage of any type. People living in households with at least one person aged 13–24 years were more likely to be persistently deprived than other households or the average of all working-age households.

Figure 9a Rates of experiencing simple or complex persistent disadvantage by age



Notes: See notes for Figure 9

²⁰ Except for disability status, which was only recorded in 2018, all personal and household characteristics were taken from the 2013 Census.

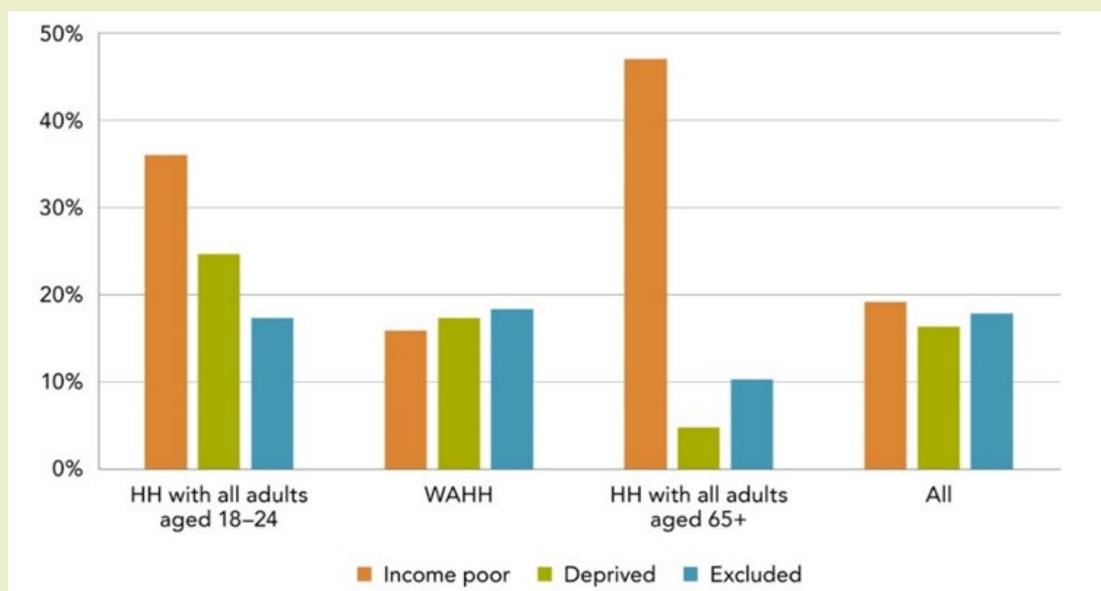
When we controlled for age, gender, ethnicity, and disability status or for the larger range of personal and household characteristics in the logistic regression, the age differences noted above were statistically significant descriptors associated with experiencing different types of persistent disadvantage.

We considered two further age-based household types, namely young households (all adults aged 18–24 years) or older households (all adults aged 65+ years). As discussed in [Box 6](#), compared with working-age households, people in young households or older households had quite different experiences of disadvantage and persistent disadvantage.

Box 6. Younger and older households had different experiences of disadvantage and persistent disadvantage

As shown in Table B8, people from older households (all adults aged 65+ years) had higher rates of being persistently income poor (30.1% compared with 9.1% for all Aotearoa New Zealand households) and experienced much lower persistently deprived rates (0.3% compared with 6.1%).²¹ Based on the New Zealand Deprivation Index,²² people from older households were also less likely to live in the most deprived areas of New Zealand (Table B10).

Figure 10 Incidence of different types of disadvantage in various Aotearoa New Zealand population age groups



Source: New Zealand Productivity Commission calculations of all New Zealand population aged 18+ using 2016–2021 HES.

²¹ As discussed earlier, two of the four excluded measures (being jobless and having no qualifications) are much less relevant to the disadvantage status of older people, hence we did not quantify the domain of persistently excluded.

²² The NZDep is a socio-economic deprivation index derived from a range of Census 2013 and 2018 measures including income, people living in households receiving means-tested benefits, sole parent households, or people not living in their own home. NZDep is based on meshblocks in 2013 and reformulated as “statistical area 1” (comprised of one or more meshblocks with a maximum population of 500) in 2018, to divide the country into 10 equal parts or “deciles”. Hence, there will always be “most deprived” deciles (10) and “least deprived” deciles (1). See Atkinson et al. (2019) for a more information about NZDep 2018.

The experience of disadvantage for people in older households is similar. [Figure 10](#) uses the 2016–2021 HES data to show that people in older households experienced much higher rates of being income poor (47%) than people from households with all adults aged 18–24 years (36%) or those from working-age households (16%). By contrast, they had much lower rates of being deprived or excluded. As discussed earlier, we expected high rates of being income poor for people in older households, because most of these adults (70–80%) were retired and their main source of “active” income was New Zealand Superannuation. However, many of these households will have accumulated wealth over their lives and may have had other income from savings and other assets, such as their own home, which reduced their overall living costs and prevented them from experiencing being deprived.

Perry (2021) and Carter & Gunasekara (2012) also found much higher levels of material wellbeing (using a combination of measures for being deprived or excluded) among New Zealanders aged 65 years and over, compared to the general population. Perry (2021) reported that this was true over the period 2007–2020.

While older households experienced lower levels of disadvantage and persistent disadvantage based on currently available data, recent evidence points to this changing over the next decade, partly due to significant changes in home ownership rates in the population of Aotearoa New Zealand since the 1990s. The Ministry of Housing and Urban Development (2023) reported that, in the 1990s, 85% of the cohort born between 1942 and 1946 were in owner-occupied housing by age 45, while only 56% of the cohort born between 1967 and 1971 were in the same position at age 45.

Renters typically spend a greater proportion of their income on housing costs, have higher levels of material hardship, and accumulate less wealth over their lifetime (The Treasury, 2022c). On reaching retirement, people renting may have increased pressure on retirement income (superannuation income levels have historically been set on the assumption that a retiree will be a mortgage-free owner-occupier) and experience increased deprivation, as a result of higher housing costs as a renter and/or reduced security of housing tenure (Ministry of Housing and Urban Development, 2023; Symes, 2021). Possibly as a direct result of the decreased rates of ownership and higher housing costs, a recent survey by Te Ara Ahunga Ora | Retirement Commission (Gamble, 2021) found that 27% of people aged 65+ years were still working, with 29% of those people saying it was because they had to.

If you don't own your own home, you have to work until the day you die or just sit at home not moving until you die if you can find anywhere cheap enough to rent.

(Survey respondent, Gamble, 2021, p. 13)

Another recent Aotearoa New Zealand study found that older women were more likely than older men to experience disadvantage in retirement, because women were more often reliant on government superannuation as their sole source of income and less likely to own their own home (Dale & St John, 2020).

People from young households were more likely to experience disadvantage, but most exited before it became persistent

As can be seen in [Figure 10](#), people from households with adults aged 18–24 years only were more likely to be income poor and deprived than the average working-age Aotearoa New Zealand household at one point in time. However, [Table B8](#) shows they were less likely to be persistently income poor or experiencing complex persistent disadvantage, and they experienced similar rates of persistent deprivation or simple persistent disadvantage as the average of all New Zealand

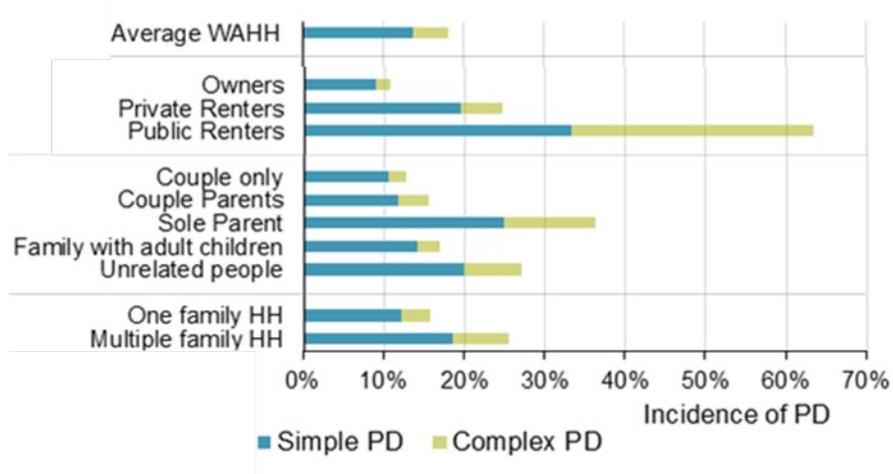
households. As seen in Table B10, people from younger households were much more likely than people from working-age households to live in the most deprived areas in one year only. They were very unlikely to spend both years living in the most deprived areas.

Focusing on low income, Creedy & Ta (2022a) showed that young people were more likely to exit low income over the medium-to-long term. They found younger people had lower incomes than other adults in working-age households, because they were more likely to be studying and not working (or working fewer hours). Younger people were also more likely to be paid less, because they had just started their careers and had fewer qualifications and skills relative to working-age households.

Private and public renters were more likely to experience persistent disadvantage

As shown in Figure 9b below, both private renter (25%) and public renter (63%) households experienced either simple or complex persistent disadvantage at much higher rates than homeowners (11%). Although private renters were more likely to experience any type of persistent disadvantage, compared to the average working-age household or homeowners, the likelihood was much lower than for public renters. In comparison, homeowners were only half as likely to experience any type of persistent disadvantage.

Figure 9b Rates of experiencing simple or complex persistent disadvantage by accommodation and household type



Notes: See notes for Figure 9.

When we controlled for age, gender, ethnicity, disability status, household type, housing tenure, multiple vs single family household, and geographical location in the logistic regression analysis, living in a private-renter or public-renter household remained significantly associated with experiencing any type of disadvantage, compared with living in homeowner households.

Other types of households experienced greater persistent disadvantage

People in sole-parent households had the highest rates and likelihood of experiencing any type of persistent disadvantage, compared with people in any other household type, and compared with people in the average of all working-age households. Although lower than sole-parent households, people living in households of unrelated people had higher rates and likelihood of experiencing any type of persistent disadvantage than other household types. Compared with any other household type, people from couple-only households generally had lower rates and likelihood of any type of persistent disadvantage, except for being persistently excluded.

Controlling for age, gender, ethnicity, disability status, household type, housing tenure, multiple vs single family household, and geographical location in the logistic regression, we found that living in sole-parent households or households of unrelated people remained significantly associated with experiencing any type of persistent disadvantage, compared with people living in couple-only households. As indicated by the descriptive analysis, living in couple-parent households was strongly associated with experiencing persistent income poverty and persistent deprivation, but less likely to experience persistent exclusion, compared to living in couple-only households.

Household qualifications affected the experience of persistent disadvantage

People from households where at least one adult had university qualifications tended to experience the lowest rates and likelihood of any type or combination of persistent disadvantage. However, even living in a household where at least one adult had a high school qualification greatly reduced the rate (from 69% to 25%) and likelihood of experiencing any type of persistent disadvantage, compared with living in a household with no qualifications.

Our regression analysis was limited with respect to considering household qualifications, given that the presence or absence of a household qualification was one of the defining measures for being persistently excluded.

People experiencing persistent disadvantage were more likely to be clustered in parts of the North Island

As seen in Table B9, people living in the Counties Manukau District Health Board (DHB) area had the highest likelihood of experiencing persistent income poverty, deprivation, or simple or complex persistent disadvantage than people in households in any one of the other seven regions.²³ Populations in the Auckland DHB area were also more likely to be persistently deprived or experience complex persistent disadvantage than populations in the other regions, but at rates slightly lower than Counties Manukau DHB. The Waitemata DHB, Wellington, Canterbury and “Rest of South Island” regions had the lowest proportion of their

²³ To manage issues associated with the size of samples within specific geographical areas, we split Aotearoa New Zealand into eight regions, based on population and aligned with regional groupings used by Stats NZ for the 2016 GSS. The 2016 GSS included Auckland as one region, but we divided it into the three district health boards, to have the regions be of a similar size and provide a deeper understanding of the people living in Auckland.

population experiencing persistent disadvantage of any kind. Table B11 offers some insights into differences in the populations residing in each geographic region.

Using the New Zealand Deprivation Index (NZDep) for 2013 and 2018 (see Table B10), we found that about 13% of people in the working-age household population lived in the most deprived 20% of areas (quintile 5 as defined by the NZDep) in both 2013 and 2018. By contrast, over one-half (53%) of public renters, just over one-third (34.5%) of people from households with no high school qualifications, and a similar share of Pacific people (37.7%) lived in the most deprived areas in both years. People living in Māori, sole-parent, disabled-people, or jobless households were also overrepresented in the most deprived areas, with over a quarter (between 25% and 28%) of their populations living there both years. The most deprived areas were in the North Island/Te Ika-a-Māui.

Our logistic regression analysis supported the findings of the descriptive analysis. Controlling for age, gender, ethnicity, disability status, household type, housing tenure, multiple vs single family household, and geographical location in the logistic regression (see Table B6), we found that populations living in areas outside of the three Auckland DHBs:

- were significantly associated with the lower likelihood of being persistently deprived
- had a higher likelihood of being persistently excluded
- while there were no significant differences in experiencing persistent income poverty or complex persistent disadvantage.

4.4 Some combinations of characteristics were related to even higher rates of persistent disadvantage

We further explored the characteristics or combinations of characteristics of three population groups (sole parents, Māori, and Pacific people) to better understand their risk of persistent disadvantage. We identified three additional at-risk characteristics common to these groups: people from households with no qualifications, public renters, and people who lived in a jobless household. We also included other characteristics that we found contributed to increased rates of persistent disadvantage for the relevant population group. For example, we included being Māori in the sole-parent population group, and we included living in a multiple family household in the Pacific people population group.²⁴

²⁴ These combinations of characteristics are not discrete. A Pacific sole parent may also be part of the Pacific-Counties Manukau DHB population segment, and vice versa.

Table 5 presents the population percentages for different combinations of at-risk groups and persistent disadvantage measures. The first panel includes the population percentages for sole-parent households. The first column shows that nearly one in ten working-age New Zealanders (9.5%) lived in sole-parent households. Of sole-parent households, 14% had no school or higher qualifications, 16% were public renters, 23% were jobless, and 36% were Māori households. The remaining columns record the percentage of each subgroup (for example, people in a sole-parent household with no qualifications) who experienced that type of persistent disadvantage.

Table 5 Further characteristics of sole parent families, Māori or Pacific people experiencing persistent disadvantage (PD)

Group or characteristic (in 2013)	% of baseline population	Persistently income poor (%)	Persistently deprived (%)	Persistently excluded (%)	Simple PD (%)	Complex PD (%)	PD at least one domain (%)
Sole parent							
All sole parents	9.5	15.7	13.6	20.1	24.8	11.5	36.4
No qualifications	13.8	25.7	18.2	58.2	38.0	30.1	68.1
Public renters	16.3	33.7	21.9	34.2	32.1	25.5	57.6
Jobless	22.6	37.9	16.5	48.3	34.1	31.4	65.5
Māori	35.7	19.5	18.0	23.5	27.2	15.8	43.0
Māori							
All Māori	16.9	10.4	10.5	15.2	18.0	8.5	26.6
Sole parent	20.2	19.5	18.0	23.5	27.2	15.8	43.0
No qualifications	12.6	21.7	18.3	59.8	47.4	24.5	71.9
Public renters	10.5	42.8	25.0	32.4	29.1	32.8	61.9
Jobless	9.8	44.3	14.9	53.8	33.8	36.2	70.0
Pacific							
All Pacific	9.0	16.0	32.4	13.4	31.1	14.6	45.7
Sole parent	17.9	12.5	26.0	22.7	32.9	12.8	45.7
No qualifications	9.7	24.0	31.0	44.2	39.7	28.9	68.6
Public renters	27.1	36.2	43.6	24.1	35.8	32.0	67.8
Jobless	8.7	34.3	28.7	47.9	35.1	33.8	68.9
Multiple family HH	29.5	15.0	45.8	9.2	37.1	15.6	52.7
Counties Manukau DHB	32.8	22.1	46.0	14.1	39.7	20.1	59.8

Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data.

Notes:

1. Ethnicity is at person level. Sole parents are at family level. All other characteristics are at household level. Sample covers all individuals in the working-age household sample.
2. Baseline population: for the All-sole parents, All Māori, and All Pacific rows, the baseline is the share of people in working-age households. For all other rows, the baseline population is the share of each of the three population groups (e.g., the share of the Māori population that is composed of sole parents, or no household qualifications).

Being a member of one of the subgroups increased the likelihood of experiencing all types of persistent disadvantage within the sole-parent and Māori population groups. This was also true for most of the Pacific people groups. Overall, just over a third (36%) of people in sole-parent households experienced persistent disadvantage in one or more domains, which increased to about two-thirds for people in sole-parent households that were also jobless (66%) or had no qualifications (68%). A similar pattern was seen across Māori and Pacific household subgroups.

Given the characteristics of the Pacific population in Aotearoa New Zealand (as described in [Box 5](#)), we identified two further subgroups that were at greater risk of persistent disadvantage in one or more domains than people in “all Pacific” households: Pacific people in multiple family households, or Pacific people living in the Counties Manukau DHB area. They were also more likely to be persistently deprived, but less likely to be persistently excluded than people living in Pacific or average working-age households. Pacific people living in households in the Counties Manukau DHB area also had higher rates of being income poor.

4.5 Some people in at-risk populations did not experience persistent disadvantage

Being part of a particular group that experienced higher rates of disadvantage did not mean that everyone in that group was disadvantaged. For example, approximately two-thirds (64%) of sole parents, 54% of Pacific people, and nearly three-quarters (73%) of Māori did not experience persistent disadvantage in any domain in both 2013 and 2018. Rather, what is reported here was the likelihood that particular groups, as compared with the average of all working-age households, experienced persistent disadvantage, whether it was at higher or lower rates than the working-age household population as a whole.

Many individuals within the population groups who had the highest rates of persistent disadvantage also had very high rates of disadvantage. As can be calculated from Table B4, four out of five people (78%) in sole parent or Pacific households, and nine out of ten people (91%) in public renter households experienced some form of disadvantage in 2013 or 2018 or both years. By contrast, 49% of people in all working-age households experienced the same situation.

4.6 The same population groups experienced high rates of disadvantage

Our analysis of the 2016–2021 HES confirmed that the same groups of people at risk of persistent disadvantage – people living in sole-parent, Māori, Pacific, public-renter, disabled-people, jobless, or no-qualifications households – were also consistently more likely to be overrepresented in experiencing some type of disadvantage in any given year (Figure B3).

The time series showed relatively little change year on year for most of these groups, although some population groups showed more variation year on year than others.

We also examined the likelihood of different groups of people experiencing income poverty, being deprived, or being excluded, using logistic regression analysis with the 2014–2018 General Social Survey (GSS) dataset to determine odds ratios (OR),²⁵ which estimated the likelihood of an event (in this case disadvantage) occurring in one group, compared with a second group of people. We did not consider combinations of disadvantage in the GSS regressions. The discussion here highlights some of the findings of this analysis (Table B12). For a more complete description, see Riggs (forthcoming).

After controlling for personal and household characteristics, we found sole parents, couples with children under 18 years old, and people living in households of unrelated people, had greater risk of experiencing any of the three domains of disadvantage relative to couple-only households. People living in households with adult children had a greater risk of experiencing being deprived or excluded than people living as a couple-only. Sole parents had the highest risk of being income poor, deprived, or excluded of any household type.

Public and private renters had a greater risk of experiencing any type of disadvantage than owners. For public renters, the risk was 2.5 to four times as high.

The ORs for educational qualifications were significant for all three domains, where higher qualifications were associated with lower levels of disadvantage. Not being in the labour force, or being unemployed, meant people were four times more likely to be income poor than those who were employed, and 2.5 to 3.5 times more likely to be deprived or excluded.

These results for disadvantage are consistent with our findings for persistent disadvantage.

Once we controlled for personal and household characteristics, ethnicity had less of an association with people experiencing disadvantage, just as it had been for persistent disadvantage. Pacific peoples were still significantly more likely (about 90%) to be deprived than non-Pacific people, and Māori were significantly more likely (about 30%) to be excluded than non-Māori people. Asian people were significantly more likely (about 2.2 times) to be income poor than non-Asian people, while Europeans were significantly less likely to be income poor than non-Europeans.

²⁵ The OR compares the odds of an event occurring in one group to the odds of the same event occurring in another group. An OR of one indicates no association or difference between the two groups. If the OR is greater than one (known as a positive association), it indicates that the event is more likely to occur in the first group compared to the second group. Conversely, an OR less than one indicates a negative association, suggesting a lower likelihood of the event occurring in the first group compared to the second group.

4.7 We should focus on all people experiencing persistent disadvantage

Although it is very concerning when particular groups of people are overrepresented among those experiencing persistent disadvantage, we must not lose sight of the numbers of people experiencing persistent disadvantage elsewhere in the Aotearoa New Zealand population, as the focus on average rates may mask large numbers of people who are struggling. For example, Europeans comprised nearly half (46% or 79,000 people) of the 172,000 people experiencing complex persistent disadvantage in 2013 and 2018. Similarly, while it was far more common for renters to be at risk of persistent disadvantage, 42% of homeowners experienced simple persistent disadvantage, and 26% experienced complex persistent disadvantage.

Disproportionality is clearly crucial to address, but we must not forget that every human being who experiences persistent disadvantage is a tragedy and that a large number of those human beings come from the dominant ethnic group. While addressing disproportionality, we must also address all persistent disadvantage.
(David King, sub. DR155)

An “and/and” conversation is needed to reduce the risk of persistent disadvantage for all people in all groups in Aotearoa New Zealand. We need to focus on all individuals, families, whānau, and communities experiencing persistent disadvantage, to ensure a fair chance for all people to live better lives.

5 Entry to and exit from disadvantage

Key points

- The reasons people enter and exit disadvantage are complex and not fully understood.
- Entry and exit are often associated with changes in family formation; knowledge, skills, and employment; physical and mental health (including injury); quality of housing; and lifecycle transitions.
- About 45–48% of people in working-age households in Aotearoa New Zealand experienced some type of disadvantage at least once in 2013 or 2018; however, for most of them (60–63%), this may have been a temporary experience.
- Other people cycled in and out of disadvantage. People who were income poor were far more likely to experience recurrent spells of income poverty than those who experienced being deprived or excluded. But the rates of recurrence across the three domains were all quite high.
- People were more likely to go from having no disadvantage into income poverty or simple disadvantage than into complex disadvantage.
- People in complex disadvantage in 2013 were less likely to exit this state by 2018 than those who were in income poverty or simple disadvantage in 2013.
- Māori or Pacific people, sole parents, or disabled people were more likely to enter into disadvantage and less likely to exit. Any type of formal qualification (high school or higher) lessened the likelihood of entering disadvantage while exit rates were higher than people in households with no qualifications.
- Compared to people in households with no disadvantage, people experiencing complex disadvantage in 2013 were more likely to gain at least one higher level qualification, and/or to gain more workers, in the household by 2018, placing them in a better position to exit disadvantage.
- However, people experiencing complex disadvantage were also more likely to shift from owning their own home to renting, or to experience a relationship breakdown.

This chapter identifies types of households at risk of entering and exiting disadvantage over time. We also examine some of the underlying reasons that help explain why some people enter or exit disadvantage, drawing on our analysis and evidence from other research undertaken in Aotearoa New Zealand and internationally.

5.1 Disadvantage did not persist for many people

All of us experience challenges in our life that can temporarily affect our wellbeing. For most of us, these challenging periods are relatively short. We found that although about 45–48% of working-age households in Aotearoa New Zealand experienced some type of disadvantage at least once in a five-year period, for about two-thirds (60–63%) of these households, this did not persist.

One reason for this is that it is related to a person's stage within their life course. For example, young people may experience income poverty at the beginning of their careers because their first job typically pays less than what they will earn later in life, while they acquire skills and experience. Disadvantage can also occur if someone is made redundant, but this does not generally persist if they can find a new job relatively quickly. Many people can get themselves through a temporary period of disadvantage by drawing on their own resources, accessing support from family and friends, their local community, and from the government (McLachlan et al., 2013; NZPC, 2022a).

5.2 Others cycled in and out of, or became stuck in, disadvantage

Several overseas studies have found that the likelihood of being income poor today depended on the duration and incidence of being income poor in the past (Arranz & Cantó, 2012; Biewen, 2006). Drawing on a sample of 14 European countries, Andriopoulou & Tsakoglou (2011) found that the longer an individual was income poor, the less likely they were to exit poverty, and the more likely they were to re-enter poverty in the future. Analysing longitudinal data from 1994–2000 for Spain, Arranz & Cantó (2012) found that exit and re-entry rates for income poverty were related to the number of spells of income poverty, and the duration of current and past spells of being income poor, as well as being related to personal and household characteristics. A similar finding was repeated by Biewen.

There is also evidence of a poverty trap, meaning that policy should aim to prevent people from falling into poverty because once poor, the probability of being poor in the future increases.

(Biewen, 2014, p. 1)

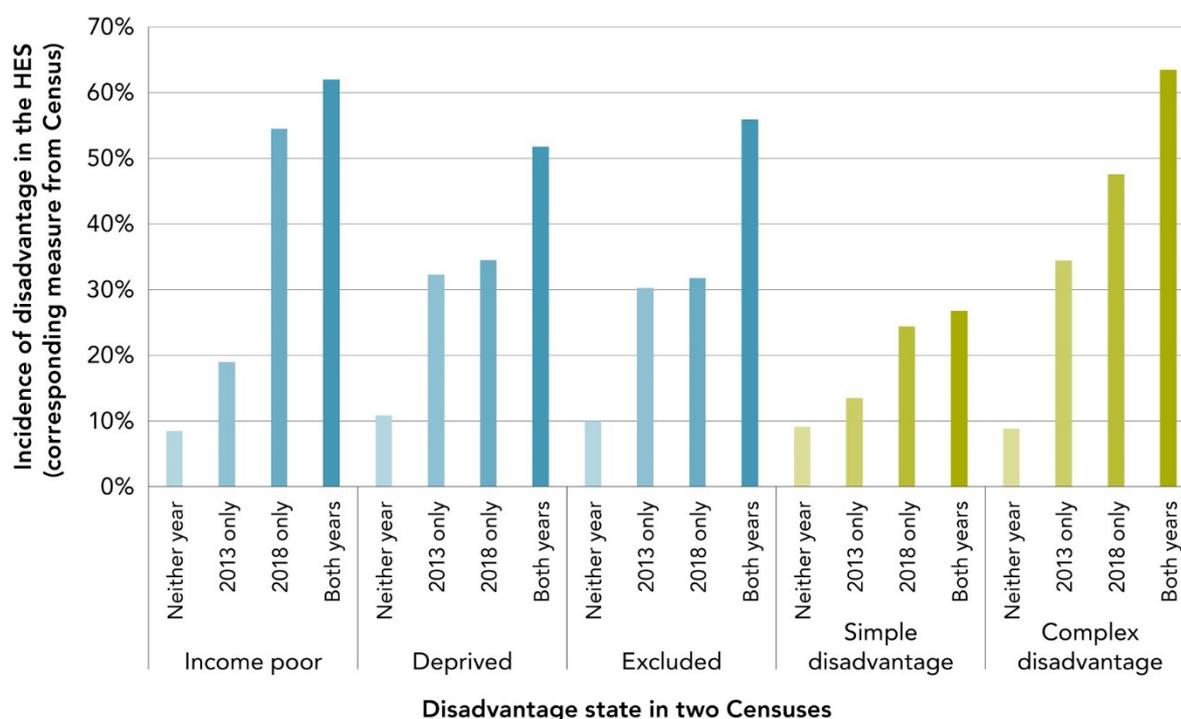
We examined the likelihood of people and households cycling in and out of disadvantage in Aotearoa New Zealand, using our combined 2013 and 2018 Census and 2016–2021 HES dataset. Because of data limitations, the reader should note that in what follows we only have a consistent measure for being income poor between time periods. Our reporting on

people cycling into and out of income poverty should therefore be considered more reliable than for being deprived or excluded. The complete set of results are shown in Table B13 (for three points in time between 2013 and 2018) and Table B14 (for three points in time between 2013 and 2021).

People experiencing simple or complex persistent disadvantage were more likely to experience recurrent disadvantage

Figure 11 looks at the population responding to HES in 2019–2021.²⁶ It shows how the likelihood of people experiencing different types of disadvantage in 2019–2021 depended on their earlier disadvantage status in 2013 and/or 2018.

Figure 11 Rates of disadvantage in 2016–2021 HES compared with status of disadvantage in 2013 and 2018 Censuses



Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data and 2019–2021 HES (see Table B13 and Table B14 for more data).

Notes:

1. Persistent disadvantage (in both years) needs to be the same domain.
2. Total Incidence of a given type of disadvantage in 2013 = “2013 only” + “both years”. For 2018, it is “2018 only” + “both years”.
3. The shares of the WAHH do not sum to 100% for simple disadvantage as the comparison is with no-disadvantage. Those with complex disadvantage are excluded.
4. The “Neither year” category for complex disadvantage includes those who did not experience any disadvantage in either 2013 or 2018, or who experienced only simple disadvantage.

²⁶ Here we focus on respondents to the 2019–21 HES for clarity. The findings were similar when we use the 2016–2017 HES data with the two Censuses. For more details see Table B13 and B14 of [excel workbook](#).

About 90% of people who experienced simple or complex persistent disadvantage (in 2013 and 2018) were likely to be experiencing simple or complex disadvantage when surveyed in 2019–2021. Conversely, of those who did not experience simple or complex disadvantage in either 2013 or 2018, only about 18% were likely to be experiencing either simple or complex disadvantage when surveyed in 2019–2021.

Complex persistent disadvantage had a greater degree of “stickiness” than simple persistent disadvantage. About two-thirds (63%) of the people experiencing complex persistent disadvantage in 2013 and 2018 also experienced complex disadvantage in 2019–2021. About 9 in 10 people (86%) experiencing complex persistent disadvantage in 2013 and 2018 continued to experience some type of disadvantage in one or more domains 2019–2021. By contrast, just over one-quarter of people (27%) experiencing simple persistent disadvantage in 2013 and 2018 experienced simple disadvantage 2019–2021. The same level of stickiness was evident when we examined the responses of people surveyed in 2016–2017.

The rates for people who experienced some type of disadvantage in either 2013 or 2018 lay between these two extremes. It appears that the timing of a spell of disadvantage is generally important. Overall, those in disadvantage in 2018 only were more likely to be disadvantaged when surveyed in 2019–2021 than those who were disadvantaged in 2013 only. This was particularly evident for those experiencing income poverty, simple or complex disadvantage in 2018, but less so for those experiencing being deprived or excluded.

When we examined the three domains of disadvantage separately, we saw some differences in people’s experience of income poverty, being deprived or excluded. Compared with people who were income poor in 2018 only, those who were persistently income poor (in 2013 and 2018) were slightly more likely to be income poor when surveyed in 2019–2021 (62% compared to 55%). Conversely, those who had experienced income poverty in 2013, but were no longer so in 2018, were much less likely to be income poor in 2019–21 (19%).

Similar to what we saw for persistent income poverty, those who were either persistently deprived or excluded in 2013 and 2018 were somewhat more likely to be deprived or excluded in 2019–21 (52% and 56%, respectively). However, in contrast to those who experienced being income poor, the timing of a single spell of being deprived or excluded did not appear to affect the likelihood of experiencing that type of disadvantage in 2019–2021.

People who have not experienced disadvantage in the past were less likely to do so in the future

Not experiencing disadvantage in the past is a strong predictor of not experiencing disadvantage in the future. Nearly half of people in working-age households did not experience any disadvantage in 2013 and 2018. Of these people, nearly nine in ten (87%) did not experience any disadvantage in 2019–2021.

Income poverty persisted or recurred for one quarter of people

As can be seen in [Table 6](#), about 70% (between 69–73%) of people in working-age households never experienced being income poor out of three points in time. Less than 10% (between 6.2–9.2%) of people experienced income poverty that was persistent or recurrent (two or three times). About 5% (4.5–5.6%) of people were “always poor” in all three years over the period studied.

Table 6 Moving in and out of being income poor was fairly common

Status in three time periods	% of all working age households		
	2013–2018	2013, 2018 & 2019–2021	Whole sample
	(1)	(2)	(1+2)
Never poor	73.2	69.3	70.8
Poor once	3.6–5.9	4.1–7.5	3.9–6.9
Poor twice	1.4–3.9	1.7–3.2	1.6–4.1
Always poor	5.6	4.5	4.9

Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data and 2016–2021 HES (see Table B15 for more data).

Notes: Each subsample has three data points. For example, in column (1), the first data point was the 2013 Census year, followed by the HES year, then finally by the 2018 Census year. In column (2), the HES year followed the Census years.

Other Aotearoa New Zealand studies reported evidence of movement into and out of disadvantage

Other Aotearoa New Zealand–based studies provide further evidence that, for some people, income poverty can persist or recur. For example, Carter & Gunasekara (2012) found that, over seven years of data from the Survey of Families, Income and Employment (SOFIE), 13% of people experienced low income for only one year, approximately 8% experienced low income for two years, and 6% experienced low income for three or more years.

More recently, the Growing Up in New Zealand (GUINZ) longitudinal study of more than 6,000 children in Auckland/Tāmaki Makaurau and Waikato used a different set of measures of disadvantage²⁷ to show that about 20% of families moved in and out of disadvantage over an eight-year period between 2009–2010 and 2018 (Prickett et al., 2022).

²⁷ GUINZ researchers grouped children based on the level of resources (including household income, material hardship, home ownership, parental work, neighbourhood deprivation, frequency of moves of address and overcrowding) relative to other children. Children were identified as having above average (advantaged), average and below average (disadvantaged) levels of resources. Low levels in one resource (e.g., income) were found to be strongly correlated with disadvantage in other resources.

5.3 Why people move into or out of disadvantage

What causes people to move into or out of disadvantage or to become persistently disadvantaged? A large body of research describes the consequences of disadvantage. However, little is known about the dynamics, or the detailed or complex causal pathways that result in people entering or exiting disadvantage or persistent disadvantage (McLachlan et al., 2013). Evidence shows that some personal or household characteristics may make people particularly prone to being income poor. For example, entry into low income is frequently associated with changes in household structure (such as becoming a sole parent or the breakdown of a relationship), followed by changes in the number of workers in the household, though it is not always feasible to identify the different events separately (Creedy & Ta, 2022a).

Some key life events may leave individuals and their families more vulnerable to entering into disadvantage or persistent disadvantage, particularly if they cannot access the resources and support they need during these times. McLachlan et al., (2013) suggested such life events included:

- relationship changes or changes in family formation (such as becoming a sole parent or the breakdown of a relationship)
- living with a long-term physical or mental illness or being injured
- experiencing a traumatic episode (such as being attacked or abused, a death of a loved one, or losing a job)
- transitioning from one stage of life to the next (for example, moving from study to work, starting a family, children leaving home, or entering retirement).

Measuring entry into and exit from disadvantage

In our analysis, “entry” refers to an individual’s transition from not experiencing any disadvantage in Census 2013 (period 1) to experiencing some type of disadvantage in Census 2018 (period 2). “Exit” refers to an individual’s transition from experiencing any disadvantage in Census 2013 (period 1) to not experiencing any disadvantage in Census 2018 (period 2).

People in households were classified into five categories in each Census year:

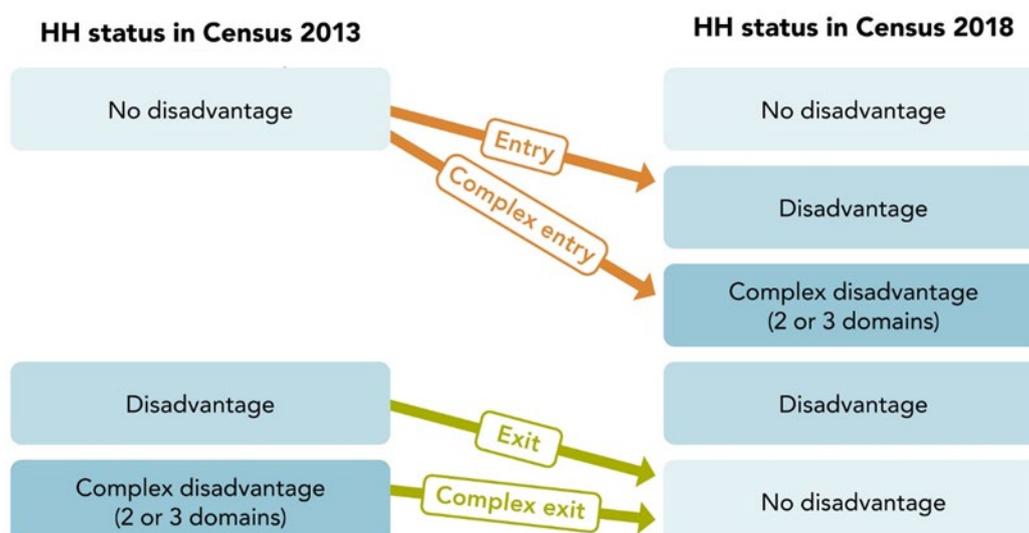
- no disadvantage
- being income poor²⁸
- experiencing simple disadvantage (in one domain only)
- experiencing complex disadvantage (in two or three domains)
- experiencing disadvantage in one or more domains.

²⁸ We did not consider doing without and left out separately, given the narrow range of measures available for the analysis in the Census.

People in working-age households were assessed as experiencing entry into or exit from simple disadvantage or having “complex entry” into or “complex exit” from complex disadvantage. [Figure 12](#) illustrates the pathways explored.

As noted in [Chapter 2 Creating the datasets for our analysis](#), we also examined a limited set of life events that could affect individuals and their households at risk of experiencing disadvantage: changes in the number of adults working in the household, becoming an owner or renter, gaining a further qualification at the household level, and changes in income.

Figure 12 Explaining entry into and exit from disadvantage



5.4 Rates of entering and exiting disadvantage varied

[Table 7](#) shows the percentage of people who did not experience persistent disadvantage in 2013 (column 1) but entered disadvantage in 2018 (column 2). Column (3) shows the percentage of people who experienced some type of disadvantage in 2013, who had exited all forms of disadvantage in 2018.

Most people entered one domain of disadvantage

Sixteen percent of people who were not disadvantaged in 2013 entered disadvantage by 2018; 10% became income poor, 13% percent experienced simple disadvantage, and 3% experienced complex disadvantage.

More people exited simple disadvantage than complex disadvantage

About half the people experiencing disadvantage in one domain in 2013 were no longer experiencing any disadvantage in 2018. A similar proportion (55%) of people exited income poverty as exited simple disadvantage (59%). The exit rate from complex disadvantage was lower, with only one-quarter (27%) of these people exiting all disadvantage by 2018.

Table 7 Disadvantage (D) entry and exit rates between 2013–2018 (in percent)

Measure	Individuals in WAHH in 2013 experiencing measure (%)	Entry: No D in 2013 to D in 2018 (%)	Exit: D in 2013 to no D in 2018 (%)
	(1)	(2)	(3)
No disadvantage	68.4	--	--
Not income poor	83.8	--	--
Income poor	16.2	9.7	54.7
Simple D (1 domain only)	25.5	13.3	58.5
Complex D (2 or 3 domains)	12.2	2.7	26.6

Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data.

Between 6–11% of all working-age people either entered or exited disadvantage between 2013 and 2018

We also considered entry and exit rates for each domain of disadvantage as a share of the overall population in working-age households.²⁹ This revealed a lot of movement into and out of disadvantage between 2013 and 2018. Between 6–8% of all individuals from working-age households who were not in any disadvantage in 2013 entered one of the three domains of disadvantage by 2018. At the same time, between 9–11% of all individuals from working-age households that were income poor, excluded, or deprived in 2013 had exited these states by 2018.

These rates are similar to those of Carter & Gunasekara (2012), who found around 7% of people not experiencing low income in the first year experienced low income in the second year. About 7–8% of people experiencing low income in the first year exited low income in the next year.³⁰ Likewise, an Australian study by Wilkins et al. (2011) found that about 5–6% of people either entered or exited being income poor in any given year.

²⁹ Because the comparison is to all individuals in working age households, the rates for exiting may seem lower than the ones shown in Table 7.

³⁰ Although data were available to consider exit rates between 2002 and 2009, it does not appear that any Aotearoa New Zealand research has assessed this to date.

Personal and household characteristics were related to entering or exiting disadvantage

Table B16 shows how people with different personal and household characteristics moved into and out of disadvantage between 2013 and 2018. Insights about the relationships between different characteristics and patterns of entry and exit are set out below.

The effect of age on entering and exiting disadvantage was limited

Overall, no clear pattern emerged in how the ages of people in the household were associated with entry and exit – with two exceptions. People in households with at least one adult aged 25–44 years were less likely to enter and more likely to exit being income poor, in simple disadvantage or in complex disadvantage. Households with at least one older person (aged 55+ years) were more likely to enter and less likely to exit disadvantage than any other age groups. This perhaps reflected the transition to retirement.

People in European households were generally less likely to enter and more likely to exit disadvantage than other ethnic households

Between 2013 and 2018, people living in Māori and Pacific households were more likely to enter into disadvantage and less likely to exit than people living in European households. People living in Asian households were slightly more likely to enter into disadvantage by 2018 and had similar rates of exit as European households.

Different household types were more likely to enter disadvantage, although exit rates varied

Compared with couple-only households and all working-age households, people from sole-parent or multiple-family households were more likely to enter any type of disadvantage, although their exit rates were similar. People in unrelated people households were more likely to enter any type of disadvantage and generally less likely to exit.³¹

People living in disabled-people households were twice as likely to enter disadvantage than people in non-disabled-people households. Individuals in disabled-people households exited all three types of disadvantage at rates two-thirds lower than people in non-disabled-people households. For example, 38% of people in disabled-people households exited income poverty between 2013 and 2018, compared to 56% in non-disabled-people households.

³¹ Once controlling for either the limited or full set of available explanatory variables in the regression, the coefficients for people from sole-parent families are statistically significant in predicting the likelihood of entering disadvantage, but not statistically significant in predicting the likelihood of exiting disadvantage.

Homeowners were much less likely to enter into and more likely to exit disadvantage than renters

Homeowners were much less likely to enter into and more likely to exit disadvantage than renters or the average working-age household population. Renters, especially those in social housing, were much more likely to enter disadvantage. The rate at which public renters exited from complex disadvantage was about half of the average working-age household population (13% compared with 27%), while private renters were slightly more likely to exit complex disadvantage than the average working-age household population (30% compared with 27%).

People from households with any qualifications were less likely to enter and more likely to exit any form of disadvantage

Finally, it appeared that education qualifications at the household level “protect” against the risk of disadvantage. People from households with university degree qualifications were the least likely to enter, and most likely to exit, any form of disadvantage, while people from households with no high school qualifications were much more likely to enter into disadvantage and remain there.

Some events occurred more frequently and had a stronger association with disadvantage

Table 8 shows some of the results of our analysis of the relationship between a set of life events occurring between 2013 and 2018, and their relationship to disadvantage in 2013. Column (1) in Table 8 shows a potential change in an individual or household life-event or circumstance between 2013 and 2018 – for example, from living in a jobless household in 2013 to one with at least one employed adult in 2018 or shifting from being a homeowner in 2013 to a renter in 2018. Column (2) shows the proportion of people in all working-age households who experienced that change in life-event status between 2013 and 2018. Columns (3) – (5) split the working-age household population into three groups (people with no disadvantage in 2013, people experiencing simple disadvantage in 2013, and people experiencing complex disadvantage in 2013) and shows the proportion of these groups that experienced change in life-event status or circumstance. The percentages illustrate the probability or likelihood of an individual experiencing each particular life event based on their disadvantage “status” in 2013.

Table 8 Probability of experiencing some selected life events between 2013 and 2018

Change in circumstances between 2013 and 2018	Percentage (%) of population group experiencing this change of status in 2018			
	All WAHH in 2013	No disadvantage in 2013	Simple disadvantage in 2013	Complex disadvantage in 2013
(1)	(2)	(3)	(4)	(5)
Additional workers in HH	33.5	29.2	35.7	50.2
Fewer workers in HH	21.6	22.1	23.1	16.4
Jobless HH now has one or more jobs	60.2	n/a	51.2	64.1
HH with workers becomes a jobless HH	3.1	1.8	4.5	8.7
Low qualification HH acquires higher qualification	20.2	15.7	23.9	35.2
Low income HH earns higher income	30.9	n/a	37.3	43.3
Higher income HH earns lower income	27.0	31.1	n/a	8.7
Homeowning HH becomes renting HH	9.9	8.6	12.6	17.4
Renting HH becomes homeowning HH	31.8	41.5	31.1	16.0
Multiple-adult HH becomes sole parent HH	4.9	3.3	6.3	11.5
Sole parent HH becomes HH with >1 adult	47.7	56.8	47.1	40.6

Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data.

Notes:

1. Events may not be mutually exclusive.
2. Events are applicable for all people in the working-age household population.

Compared to people in households with no disadvantage, people experiencing complex disadvantage in 2013 were more likely to gain at least one higher-level qualification in the household (35% compared with 15%), and to gain more workers in the household (50% compared with 29%) by 2018. Compared with the average of all working-age households,³² they were also more likely to increase their income (43% compared with 31%) by 2018. At first glance, this seemed counterintuitive, but we assumed that households with no disadvantage may not have a similar need to improve their qualifications or employment status, while people in households in complex disadvantage may seek to gain higher qualifications or employment (more workers) to put them in a better position to exit complex disadvantage.

³² By definition, experiencing low income is equivalent to experiencing disadvantage, so we could not compare no-disadvantage households with complex-disadvantage households, in this instance.

We saw further evidence of the stickiness of experiencing complex disadvantage. People experiencing complex disadvantage in 2013 were more likely to transition from owning their own home to renting by 2018 (17%), compared to people living in households with no disadvantage (9%).

The reverse was true for the transition from renter to homeowner by 2018 – people experiencing no disadvantage in 2013 (42%) were much more likely to become homeowners than those experiencing complex disadvantage (16%).

Experiencing simple or complex disadvantage appeared to have a negative impact on family relationships, as it was more likely for families experiencing disadvantage in 2013 to change from being a household with more than one adult to a sole-parent household, compared to people in households with no disadvantage. The converse was also true, as people in households experiencing simple or complex disadvantage were less likely to transition from a sole-parent household to one with more than one adult.

5.5 Other research on life events and their effects on entry and exit from disadvantage

The preceding sections have described patterns of entry into and exit from disadvantage and persistent disadvantage; the types of people who are more likely to experience such transitions; and some evidence of how changes in circumstances, such as getting a job, are associated with entry into and exit from any type of disadvantage in Aotearoa New Zealand.

This section expands on what we know about the key life events associated with entering or exiting disadvantage. These include:

- relationship breakdown or changes in family formation
- change in knowledge, skills, and employment of an individual or whānau
- living with a long-term physical or mental illness, or being injured
- lack of access to good quality of housing
- important transitions during a person's life (such as moving from study to employment)
- having a strong cultural identity.

We also discuss how inadequate support from the public management system might contribute to the likelihood of experiencing disadvantage or persistent disadvantage.

Relationship breakdown or changes in family formation

When a heterosexual relationship breaks down, women are at much higher risk of experiencing poverty than men, especially if they have children to care for. Australian research found that while a break-up reduces men's disposable household income by 5% on average, a break-up decreases women's household income by almost 30% on average (Broadway et al., 2022). The study also found a woman's most important protection against experiencing income poverty after a separation is having a stable job and their own income before the break-up.

People may also experience a change in circumstances that can lift them out of disadvantage (for example, a sole parent who re-partners or a stay-at-home parent who returns to work once their children go to school). Creedy & Ta (2022a) found that about two-thirds of sole parents who re-partnered between 2013 and 2020 in Aotearoa New Zealand experienced an increase in income, so they were no longer living in a low-income household. They also found that 40% of adults who were partnered in 2013 and then separated by 2020 had entered a low-income state. Drawing on European data, Biewen (2014) reported that living in sole-parent households significantly increased the likelihood of being persistently income poor.

In summarising international research, (Hughes, 2022b) observed that sole parenthood is often a “transitory state” rather than a permanent one, and the pathway into sole parenthood (for example, whether a parent chooses to parent alone, separates from a partner or is widowed), and the situation of the other parent, factor into whether the individual and whānau are at risk of disadvantage or persistent disadvantage.

A change in knowledge, skills, and/or employment status of an individual or whānau

People who have knowledge and skills (for example, literacy skills and qualifications), or who are in employment, are more likely to avoid disadvantage or are better able to deal with disadvantage when it occurs. A European study (Biewen, 2009) found that, while living in jobless households significantly increased the likelihood of being persistently income poor, the opposite was also true. Being income poor in one period reduced the likelihood of being employed in the next period. Biewen (2014) also reported that a high level of education mitigated the risk of being persistently income poor.

Some research in Aotearoa New Zealand found that overall, gaining qualifications and skills will most likely contribute to people experiencing higher levels of wellbeing (Haines & Grimes, 2021). An exception to this was for female sole parents, who they found did not experience consistently positive improvements in life satisfaction upon becoming employed.

The effect of gaining knowledge, skills and employment is especially visible among young people. Based on different datasets and analyses, Creedy & Ta (2022a) and Hughes (2022b) both found that nearly one-half of young people aged 18–24 years in Aotearoa New Zealand may experience income poverty at one point of time. However, Creedy and Ta showed that three-quarters of people aged 18–24 years exited low income over the medium term (seven years), once they had upskilled or gained a qualification, become employed or gained more work experience.

Providing people with opportunities to increase their knowledge and skills can help them increase their earnings from employment and reduce their risk of being income poor. In Aotearoa New Zealand, people with lower levels of qualifications were more likely to re-enter the welfare system (that is, to receive a benefit) after they had managed to move off an income benefit (Ministry of Social Development, 2018). Other New Zealand research found that gaining a tertiary qualification raises annual earnings by about 5% for men and 12% for women (Hyslop et al., 2020).

In the long run, high-quality employment is likely to lead to a positive increase in income, productivity, and wellbeing. Employment can enhance an individual's skills and abilities, which in turn can reduce their likelihood of unemployment in the future, increase their labour market productivity, leading to higher wages. However, earnings may not always increase with tenure for the lowest-paid workers. Plum et al. (2021) found that workers who were continuously on low pay (in the bottom 20% of earnings) over the previous 12 months had a low probability (less than 33%) of moving into a higher-paid job. People in low-paid, precarious employment were found to be more likely to experience job loss, and, as a result, to experience material hardship (New Zealand Council of Trade Unions, 2013).

Recent evidence from the OECD (Égert et al., 2022) indicates that the quality of skills may matter more than the quantity of education in improving productivity in an economy. Matching assessments of skills and competencies of working-age adults with their earlier Programme for International Student Assessment (PISA)³³ at age 15 in 37 countries, they found that higher test scores for 15-year-olds had a greater impact on productivity than increasing the quantity or length of time in education. This was true across OECD countries, including for Aotearoa New Zealand. Their conclusion was that improving PISA scores may have as great an effect on productivity as improving product market competition over time.

Living with a long-term physical or mental illness or being injured

A change in a person's physical or mental health can lead to disadvantage in their life by making it harder to work or study, which can result in disadvantage. Experiencing a traumatic brain injury or a stroke can reduce employment by 19 and nine percentage points, respectively (Dixon, 2015). People with poor health or a disability were identified by McLachlan et al (2013) as more likely to experience multiple forms of, or deeper, disadvantage.

In Australia, Laplagne et al. (2007) found that preventing a mental health condition had the largest positive effect on labour force participation, increasing it by between 26 and 30 percentage points for men and 22 and 25 percentage points for women.

A lack of access to good quality housing

While evidence clearly links the quality of housing with health outcomes (Riggs et al., 2021; Telfar Barnard et al., 2020) and wellbeing outcomes (Howden-Chapman et al., 2021), the relationship between quality of housing and the risk of experiencing disadvantage or persistent disadvantage appears to be less well established. Poor-quality housing may prevent people from exiting persistent disadvantage because of ongoing health issues caused by a cold and damp house. In Aotearoa New Zealand, poor-quality housing that is overcrowded, cold, damp or mouldy is associated with various health disorders, particularly respiratory infections (Riggs et al., 2021). Cold, damp and/or mouldy houses were associated with a greater number of hospital nights and deaths, compared with overcrowding, as shown in [Table 9](#).

³³ Programme for International Student Assessment (PISA) is designed to measure the extent to which 15-year-old students have acquired key knowledge and skills using standardised test in three subjects (mathematics, reading and science).

Reducing hospitalisations by addressing housing conditions has been found to improve school attendance in children, reduce productivity losses, and decrease sick days from work for adults (Howden-Chapman et al., 2021).

Table 9 Evidence of effect of housing conditions on hospitalisation nights and deaths, 2010–2017

Housing condition	Proportion of New Zealand population exposed – all ages (%)	Estimated length of hospital stay, no. of nights (uncertainty range)	Estimated annual no. of attributable deaths (uncertainty range)
Overcrowding	10.1 (95% CI: 10.1–10.2)	806 (53–2,565)	1.4 (1.0–1.8)
Cold housing	21.2 (95% CI: 20.0–22.3)	1,834 (748–3,561)	15.9 (3.3–36.9)
Damp or mouldy housing	31.8 (95% CI: 29.7–33.8)	36,649 (24,908–49,868)	144.7 (97.8–197.5)

Source: Riggs et al. (2021)

The relationship between poor-quality housing and increased risk of hospitalisation has been associated with whānau who were already income poor (Telfar Barnard et al., 2020). Households having higher incomes may be able to address poor-quality housing by spending more money on heating their homes or by shifting to better-quality housing. Howden-Chapman et al. (2021) observed that Māori, Pacific people, disabled-people, and low-income households with lower rates of home ownership were more likely to have higher levels of potentially avoidable housing-related hospitalisations.

Important transitions during an individual's life

Important transitions during an individual's life include moving into the workforce, starting a family, and moving into retirement. The transition of young people from study into employment has been of particular interest to Aotearoa New Zealand governments. Several programmes have been put in place to reduce the proportion of young New Zealanders who are not in education, employment, or training (commonly known as NEET).

For example, Samoilenko & Carter (2015) found that after two years of experiencing a long NEET spell, young people were less likely to be in employment, more likely to be receiving an income benefit from the government, and more likely to have experienced another long-term NEET spell of at least five months, compared to young people not experiencing a long NEET spell. After four years, young people who experienced a long NEET spell were still more likely to be receiving an income benefit from the government and more likely to have experienced another long NEET spell.

Having a strong cultural identity can protect people from experiencing disadvantage

A strong cultural identity can protect people from experiencing disadvantage. Conversely, a breakdown in cultural affiliation can expose individuals to a range of negative outcomes, or mauri noho (Muriwai et al., 2015). In particular, participants in our 2021 deep-dive wānanga pointed out that colonisation – and subsequent assimilation policies – led to Māori becoming disconnected from their own culture, leading to a range of enduring negative outcomes (Haemata Limited, 2021). Having a strong connection to one's culture can provide an individual, whānau or community with a sense of worth and confidence. Participants in the wānanga generally agreed that:

Māori who felt a sense of connection with their culture, were more likely to feel a sense of expectation on them to succeed and create something for themselves and for their mokopuna.
(Haemata Limited, 2021, p. 9).

Studies have found that people who are better connected to their own culture do better. For example, a link has been found between family connection, ethnic identity and wellbeing among Māori young people (Stuart & Jose, 2014), and between a Māori person's ability to engage in Māori social and cultural contexts and greater psychological resilience (Muriwai et al., 2015). Pacific matua (elders) and their families who participated in in-depth talanoa (conversations) reflected that intergenerational living arrangements resulted in stronger and better family and cultural ties, even if it meant having to put up with lower income or crowding within the household (Rohorua et al., 2022).

Our cultural obligation is to look after our parents, and we are willing to spend for them because we love them. Whilst we experience some financial burdens, we are happy to live on a limited budget.
(Kiribati son, Rohorua et al., 2022, p. 23)

It was difficult to find appropriate or larger houses for the household... [also] a challenge finding a house that suited the needs and wants for us.
(Pacific matua, Rohorua et al., 2022, p. 37)

The public management system can either reduce or contribute to disadvantage

The government can play an important role in supporting people who experience disadvantage. It provides income support when people become unemployed, health treatments when people are sick, and accommodation when people become homeless. For example, in Aotearoa New Zealand, the Working for Families tax credits and the Accommodation Supplement have been found to reduce poverty for households where at least one person is employed. Without these two income sources, the poverty rate for these households rises from 7.0% to 9.2%. For sole-parent households, the poverty rate nearly doubles from 12.3% to 21.6%, if these two income sources are removed.

However, as discussed in our interim and final reports for the A Fair Chance for All inquiry (NZPC, 2022a, 2023a), barriers within the public management system may contribute to people experiencing recurrent spells of disadvantage or becoming trapped in persistent disadvantage.

For example, evidence suggests that relationship rules within the welfare system discourage the formation of two-parent family units by presuming full financial dependence on a partner from early on in a relationship (Neuwelt-Kearns et al., 2021). The rules particularly discriminate against disabled people.

A lot of disabled people don't get married because their partners can't afford that. It's quite horrible, because you're assuming that we [disabled people] should come in under someone else's income. Each individual needs their own benefit. For a lot of disabled they can't live a good life because they can't have a relationship.

(Dr Huhana Hickey, as reported in Neuwelt-Kearns et al., 2021, p. 27)

The rise in the use of the internet and digital devices also makes it harder for people experiencing disadvantage and other groups to access services. As the Digital Equity Coalition Aotearoa noted in its submission to the interim report for the A Fair Chance for All inquiry, “Low income has a direct effect on the ability to afford suitable internet connections and devices” (sub. DR136, p. 3). This was particularly evident during the recent COVID-19 pandemic lockdowns. It is estimated that one in five people in Aotearoa New Zealand continue to lack at least one of the four elements needed to be “digitally included”: motivation, access, skills or trust (New Zealand Government, 2020). In response, the New Zealand Government developed an ongoing action plan to improve digital inclusion within New Zealand.

Biewen (2014) found that the loss of entitlement to welfare payments in the United Kingdom led to a “poverty trap”, meaning that it was not worthwhile to take a job for some who were income poor. This is supported by an Aotearoa New Zealand study that looked at people who move off an income benefit (welfare payments) into employment (Dixon & Crichton, 2006). This study found that, although people tended to remain employed for much of the following two years, in many instances their monthly earnings were not at a level consistent with self-sufficiency. This was because part-time and part-month employment was common, and more than half of the group still required additional benefit income during the two years they were followed.

6 Connecting disadvantage, persistent disadvantage and wellbeing

Key points

- Experiencing disadvantage is associated with lower life satisfaction, with people experiencing more domains of disadvantage reporting lower life satisfaction than those experiencing fewer domains.
- People experiencing persistent disadvantage reported lower life satisfaction compared to people who experienced disadvantage at only one point in time.
- The more domains of persistent disadvantage an individual experienced, the lower their life satisfaction.
- Sole parents, individuals in households of unrelated people, and public and private renters all had much lower ratings of life satisfaction than other related populations.
- Our “distrust index”, compiled from seven measures of trust, showed distrust was a significant factor for people experiencing being excluded or deprived, but not significant for being income poor.
- We found a strong relationship between low levels of trust and experiencing any type of disadvantage.

6.1 Reducing disadvantage is expected to improve wellbeing

Understanding whether experiencing persistent disadvantage is related to subjective wellbeing provides evidence on how to support people to enhance the four dimensions of mauri ora (mana tuku iho, mana tauutuutu, mana āheinga and mana whanake) and live better lives.

We used life satisfaction as a proxy for subjective wellbeing. In 2014, 2016 and 2018, the General Social Survey (GSS) included three key subjective wellbeing questions relating to life satisfaction, sense of purpose (that is, that life is worthwhile), and family wellbeing – all rated on a scale of 0 (low) to 10 (high). For life satisfaction, 0 is totally dissatisfied and 10 is extremely satisfied.³⁴

Since at least 2015, the HES has included one wellbeing question on life satisfaction. Until 2019/2020, the responses were rated on a five-point Likert scale, where one was “very dissatisfied” and five was “very satisfied”. From 2020/2021, the HES life satisfaction question has been rated on a scale of 0 to 10.³⁵

We were not able to track life satisfaction over time, as we only had one data point for each respondent in either the GSS or HES. However, we were able to compare the life satisfaction of people experiencing persistent disadvantage with those experiencing disadvantage or no disadvantage, controlling for observable characteristics using our GSS or HES datasets.

We discuss highlights of some of the findings of this analysis below. For a more complete description, see Riggs (forthcoming).

6.2 Any experience of disadvantage is associated with lower life satisfaction

Greater complexity of disadvantage at one point in time was linked with decreased life satisfaction

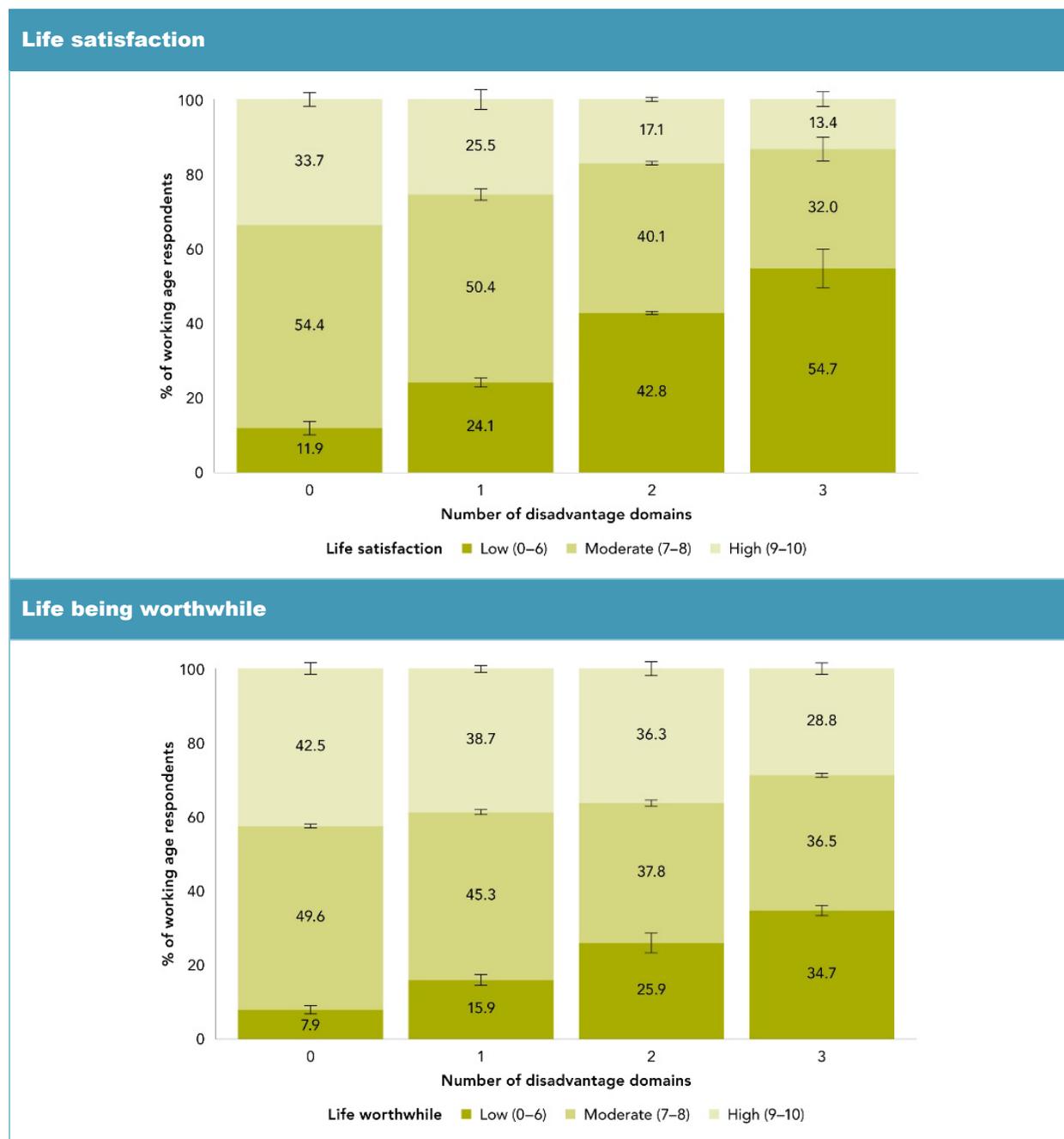
As one might expect, any experience of disadvantage is associated with lower levels of wellbeing. [Figure 13](#) and [Figure B4](#) show that the proportion of respondents reporting low levels of life satisfaction, life being worthwhile, or family wellbeing increased significantly as the number of disadvantage domains they were experiencing increased. For example, in [Figure 13](#), only 12% of people not experiencing disadvantage reported low levels (0–6) of life satisfaction, while 55% of those experiencing all three domains of disadvantage reported low life satisfaction. This percentage was significantly higher compared to people experiencing one or two domains of disadvantage.

The opposite was true when we considered people reporting high levels (9–10) of life satisfaction. Of those people experiencing no disadvantage, 34% reported high life satisfaction, compared with 13% of those experiencing three domains of disadvantage.

³⁴ In 2018, the GSS also included the WHO-5 Well-being Index (WHO-5), to give insight to psychological or mental wellbeing in Aotearoa New Zealand. Given the limited amount of data available, we did not include the WHO-5 in our analysis here.

³⁵ We converted the 2021 HES results to a five-point Likert scale, to keep it the same as other HES years. We also confirmed that the distributions of level of life satisfaction by demographics in 2021 looked very similar to those of any preceding years.

Figure 13 Subjective wellbeing measures by complexity of disadvantage



Source: Riggs (forthcoming)

Notes: For all three wellbeing measures, we collapse the 11 responses into three groupings: low (0-6), medium (7-8), and high (9-10).

Life satisfaction ratings were similar across different age groups

We compared the mean life satisfaction and life being worthwhile scores for different age groups (18–24 years, working age, and 65+ years) experiencing different combinations of disadvantage or no disadvantage. [Table 10](#) shows that people experiencing no disadvantage had the highest mean life satisfaction scores of any age group. The gap in the mean scores progressively widened as the number of domains of disadvantage experienced increased. For example, the average life satisfaction score for the working-age population is 7.7. People with no experience of disadvantage had a mean life satisfaction score of 8.0, while those experiencing disadvantage across all three domains had a mean score of 6.0. The 18–24 and 65+ age groups display similar patterns. The same patterns also generally held for the life being worthwhile measure (Table B17).

Table 10 Disadvantage and mean life satisfaction by three age groups (2014–2018 GSS)

		Working age population: (25–64 years)		18–24 years	65+ years		
Number of domains	Disadvantage domains	Incidence (%)	Mean life satisfaction	Incidence (%)	Mean life satisfaction	Incidence (%)	Mean life satisfaction
0	Not disadvantaged	68.1	8.0	58.4	7.9	53.9	8.3
1	Income poor	8.1	7.8	11.8	7.4	36.9	8.3
	Deprived	5.2	7.2	6.0	7.5	1.6	7.3
	Excluded	7.7	7.1	9.2	7.3	2.80	7.9
2	Income poor & deprived	1.5	7.0	2.3	7.8	1.5	6.8
	Income poor & excluded	2.3	6.7	3.2	6.7	1.9	7.3
	Deprived & excluded	4.1	6.4	5.8	6.9	0.9	6.8
3	Income poor, deprived & excluded	3.0	6.0	3.2	6.9	0.5	6.5
	Mean score for age group	100	7.7	100	7.6	100	8.2

Source: Riggs (forthcoming)

Notes:

1. Life satisfaction is based on weighted population.
2. “Income poor” is <60% household equivalised disposable income (HEDI), “deprived” is two or more of seven items, and “excluded” is four or more of 18 items.
3. The small sample/population sizes for some of the comparisons (as indicated by the incidence columns) means these have wide confidence intervals. This, combined with the skewedness in respondents’ reporting of wellbeing which saw the vast majority reported scores lying between six and eight, meant the differences between mean life satisfaction values were generally not statistically significant.

Experiencing any disadvantage is associated with lower life satisfaction

Rather than relying on a theoretical classification of measures into different dimensions of disadvantage, we undertook principal components analysis to derive “disadvantage indices” from the 26 correlated disadvantage measures in the GSS, to aid our understanding of how the different measures interacted with disadvantage. We used the six disadvantage indices we derived in a series of logistic regressions to determine odds ratios (ORs), which estimated the likelihood of an event (in this case disadvantage) occurring in one group, compared with a second group of people. For a more complete discussion about how we derived and analysed the principal components, see Riggs (forthcoming).

Table 11 shows the results for the life satisfaction regression with six disadvantage indices (see Table B18 for a list of the measures in each index). The ORs on the disadvantage indices were significantly greater than one, meaning that higher disadvantage scores are associated with lower levels of life satisfaction. The “going without (essentials)” and the “not belonging” indices had the largest ORs, indicating that any increase in either of these two indices increased the likelihood in reporting a lower life satisfaction by a greater margin than the same change in the “inadequate housing”, “lack of personal safety” or “lack of neighbourhood safety” indices. Adding the demographic characteristics of the working age population to the ordered logit regression (Table B19) did not make any significant changes to the results for the disadvantage indices.

Table 11 Ordered logit regression analysis of life satisfaction against disadvantage indices

Dependent variable: life satisfaction			
	Odds Ratio	95% confidence intervals	
Disadvantage indices (Independent variables)			
Going without	1.598	1.534	1.665
Lack neighbourhood safety	1.161	1.119	1.205
Lack personal safety	1.134	1.091	1.179
Work, skills & income	1.217	1.171	1.265
Inadequate housing	1.154	1.106	1.203
Not belonging	1.311	1.256	1.368
Survey year (ref group=2014)			
2016	1.047	0.950	1.154
2018	1.112	1.009	1.226
Adj. R-sq	0.1682		

Source: Riggs (forthcoming)

When we controlled for both disadvantage indices and personal and household characteristics in the ordered logit regressions, Pacific and Māori respondents were significantly less likely (about 20% less) to report lower levels of life satisfaction than respondents not reporting Pacific or Māori ethnicity. People in households of sole parents or unrelated people had ORs significantly greater than one and so were more likely than couples (with or without children) to report low levels of life satisfaction.

By contrast, in all specifications of the ordered logit regression, neither qualifications status (no high school qualifications, high school only, post-secondary or university qualifications) nor the region where a respondent lived had significant ORs. This indicates that these measures did not have a significant effect on life satisfaction given the other demographic and disadvantage measures already included in the analysis.

Labour-force status and public renting no longer had a significant association with life satisfaction once the disadvantage indices were included in the regression. This implies that experiencing measures within the disadvantage index had a stronger relationship with life satisfaction than these other characteristics.

The 2014–2018 GSS also included a subjective measure of health (respondents could report their health as excellent, very good, good, fair, or poor) and subjective measures of peoples' trust in institutions and people. Because of their relationship to wellbeing and disadvantage, we included these measures as independent variables in the ordered logit regression for life satisfaction, as well as assessing our “distrust index” separately as a dependent variable (see [section 6.4 Being in disadvantage is associated with distrust](#)).

We found that people reporting poor health or high levels of distrust had some of the largest ORs, indicating these had the strongest relationship with respondents' life satisfaction. People reporting poor health were three times more likely to also report reduced life satisfaction as people reporting good health. People reporting high levels of distrust were twice as likely to report reduced life satisfaction as those with high levels of trust.

6.3 Persistent disadvantage reduced life satisfaction further

Drawing on the 2016-2021 HES, [Table 12](#) shows that the mean life satisfaction for people who did not experience any disadvantage or persistent disadvantage was 4.19. As with the GSS analysis, experiencing disadvantage in any domain in one year reduced mean life satisfaction to 3.84–3.87.

Experiencing persistent disadvantage (as opposed to disadvantage) in any one domain further reduced mean life satisfaction ratings to 3.61–3.75.

Experiencing disadvantage in more than one domain, whether temporary or persistent, reduced mean life satisfaction scores from 4.19 to 3.41–3.49.

Table 12 Mean life satisfaction in HES based on the disadvantage state in two Censuses

Disadvantage based on two Censuses		Mean life satisfaction in HES
		All respondents in WAHH
Income poor	Never income poor	4.14
	One year (out of three)	3.87
	Two years (out of three)	3.61
	Three years	3.57
Deprived	Never deprived	4.06
	One year	3.85
	Both years	3.71
Excluded	Never excluded	4.13
	One year	3.84
	Both years	3.63
By type of persistent disadvantage	Never with PD	4.10
	Simple PD	3.75
	Complex PD	3.46
One or more of three domains (Simple or complex)	Never in D or PD	4.19
	One year	3.93
	Both years	3.68

Source: New Zealand Productivity Commission calculations of working-age household population using 2013 and 2018 Census data and 2016–2021 HES.

As seen in Table B20, when we controlled for age and cohort in a logistic regression, experiencing any form of disadvantage or persistent disadvantage was both significant and associated with lower life satisfaction compared with no disadvantage. While being disadvantaged in two periods compared to one period was associated with a further significant reduction in life satisfaction, experiencing income poverty in two time periods compared to three did not significantly reduce life satisfaction.

6.4 Being in disadvantage is associated with distrust

The 2014–2018 GSS had a generalised and institutional trust module that included seven questions asking how much the respondent trusted most people in Aotearoa New Zealand, and how much they trusted various institutions in New Zealand (police, education system, media, courts, Parliament, and the health system). The scale for each question was from 0 (not at all) to 10 (completely). We created a “distrust score”, which counted the number of elements (that is, most people, police, education system, courts, health system, Parliament, and media) given low ratings (0–4) by respondents, so the distrust score ranges from 0 (no distrust) to 7 (distrust all).

In addition to the reporting on the distrust index and life satisfaction noted above, we included the distrust scores as independent variables in our ordered logit regressions where we had dependent variables of being income poor, being excluded or being deprived. When the disadvantage indices, personal and household characteristics and distrust scores in these regressions (Table B19) were included, we found a significant association between distrust and being excluded or deprived (i.e., those with more distrust were significantly more likely to be either excluded or deprived), but we did not find the same significant association for being income poor. Distrust was much more significant across all three domains of disadvantage when the disadvantage indices were removed, suggesting a strong relationship between distrust and disadvantage, rather than between other personal and household characteristics and distrust.

We also undertook regression analysis with “distrust” as the dependent variable, with personal and household characteristics as independent variables, with and without the disadvantage indices as shown in Table B21. This highlighted again the relationship between disadvantage and distrust, with several characteristics becoming insignificant (including sole parents, living with unrelated people, labour force status, and housing tenure) when the disadvantage indices were added to the regression. People experiencing more of the measures within the going without and lack of belonging indices had the greatest likelihood of reporting higher levels of distrust.

People in poor health had an increased likelihood of reporting higher levels of distrust relative to people reporting good health. People who had no high school qualifications were also more likely to report higher levels of distrust than people with high school, post-secondary or university qualifications.

7 Evidence of intergenerational disadvantage in Aotearoa New Zealand

Key points

- Evidence shows intergenerational disadvantage exists in Aotearoa New Zealand, but measuring the size or extent of its impact is not possible using current data collections.
- The following factors have been found to increase the risk of persistent disadvantage being transmitted to future generations.
 - **Not getting a good start in life**, due to the ongoing exposure to stress at home, lack of support during childhood, and not being cared for.
 - **Experiencing exclusion and deprivation at home** because of a lack of access to resources needed to help children grow and develop. Children who have parents with low levels of education, or who live in sole-parent households, are more likely to experience insufficient resources during childhood, which can flow through to their adult lives.
 - **Not having a sense of identity and belonging** can lead to intergenerational disadvantage by making it hard for children to fully participate in society and take up opportunities to help them develop and grow.
- Being income poor in childhood can create barriers to growth and prosperity in adulthood.
 - One in three children who grow up in the households with the lowest family incomes remained in households with the lowest family incomes in adulthood.
 - Parental income and education were associated with transmitting disadvantage and advantage to their children in the form of income levels and education achievement in adulthood.

7.1 Intergenerational disadvantage is largely unmeasured in Aotearoa New Zealand

Persistent disadvantage that occurs across the life course of an individual or family can be transmitted to the next generation as intergenerational disadvantage. This raises the risk that children born into persistent disadvantage may continue to experience disadvantage throughout their lives.

Aotearoa New Zealand currently has limited evidence on the incidence or prevalence of intergenerational disadvantage, nationally representative longitudinal administrative or survey data is not available. However, several studies have attempted to measure the degree to which being income poor is transmitted between generations, otherwise known as intergenerational income mobility (section [7.5 Growing up income poor and facing barriers to growing prosperity](#)).

Much better evidence exists about how disadvantage is transmitted to future generations, and about the importance of early childhood in shaping a child's life as they travel through adolescence to adulthood. We have some knowledge of the types of situations where persistent disadvantage experienced by the household of a parent or grandparent in one generation may be transmitted or "passed on" to children of the next generation (D'Addio, 2007; Hancock et al., 2013).

Examples of situations where disadvantage or persistent disadvantage may be transmitted between generations include (but are not limited to):

- not getting a good start in life – the absence of mana āheinga
- experiencing being excluded or deprived at home, which can make it harder for children to build the capabilities to participate in their wider community – contributing to an absence of mana āheinga and/or an absence of mana tauutuutu
- not having a sense of identity and belonging – the absence of mana tuku iho
- growing up income poor and facing barriers to growing prosperity – the absence of mana whanake.

[Box 7](#) describes the experience of cumulative events and their impacts, leading to persistent disadvantage and, in some cases, intergenerational disadvantage.

Box 7. The cycle of disadvantage can lead to persistent disadvantage or even intergenerational disadvantage

Persistent disadvantage may happen for a variety of reasons, as “one thing leads to another”, with a cumulative effect on an individual’s or family’s ability to thrive and live the life they want to live.

It’s very hard raising children [in emergency accommodation]. Especially when you don’t have cooking facilities, just trying to provide those basic needs. A real cost if you’ve gotta buy takeaways. Also, there’s all different types of people – addicts, people under the influence. There’s always people fighting, drinking – and it doesn’t look good for the kids. With me, with my kids, it was really hard. I had to beg my ex-partner to take them in for a week or two. They’re not able to go to school because we were moving, the travel, the expense of traveling – you have to go back to WINZ and say ‘hey, you’ve put me out in the middle of nowhere, how do you expect me to travel around and also feed my kids at the same time?’

(Sole parent support recipient, Neuwelt-Kearns et al., 2021, p. 22)

Had a hip replacement which took a big chunk of retirement money by the time you add in consultants’ fees / gadgets needed / meds required. If anything fails, such as refrigerators / washing machines / dishwashers / cars you need even more saved. Or you simply don’t have. No more treats at the supermarket. No going out no joining clubs. Your social life suffers when these things happen. But it’s a good life in NZ but I would like to be without the worries.

(Survey respondent, Gamble, 2021, p. 13)

It is not hard to see how the cumulative effects of unemployment, low income, unexpected expenses, and/or health conditions can make it hard for people to cope. It is also possible to see the potential impact of this cycle on families – in particular, for children whose pattern of non-attendance and regularly changing schools increases the likelihood they will not gain high school qualifications. This can then affect their employment opportunities with the result that, like their parents before them, they end up experiencing persistent disadvantage as adults themselves.

7.2 Not getting a good start in life

The start a child receives in life can impact their development and influence their ability to build the capabilities they need to reduce their exposure to disadvantage during their life (such as unemployment) and help them deal with it when it does arise (for example, looking for work). This discussion is not about the failure of parents to support their children but demonstrates areas where support from government and communities is required to reduce the transmission of disadvantage between generations.

Experiencing stress in early childhood can make it harder for children to develop and grow

Children being raised in households experiencing persistent disadvantage across one or more domains are more likely to experience stress that can become toxic over time and affect the way their brains and bodies grow. This can have lifelong consequences for both physical and mental wellbeing (Center on the Developing Child, 2010) and make it harder for them to cope with adverse life events or circumstances. Aotearoa New Zealand-based health and development research established that behavioural problems in childhood are precursors of a wide range of adverse outcomes in adulthood (Advisory Group on Conduct Problems, 2009).

Knowing that there's money coming keeps you well mentally.
(Young person in state care from Dunedin, Office of the Children's Commissioner & Oranga Tamariki, 2019, p. 42)

Exposure to stress can also occur during pregnancy before a child is born and can result in a lower birth weight. Lower birth weight has been linked to substantially increased risk for obesity, diabetes, and cardiovascular disease later in life (Center on the Developing Child, 2010), which can contribute to ongoing disadvantage during a person's life.

A child's early years are important, but ongoing support throughout childhood is also needed

Although there is general agreement on the need to support children and their families during the early years, particularly the first 1,000 days, it is also important to ensure they receive adequate care and support throughout their childhood. For some children, support during early childhood may not be adequate and more support will be needed later. Not all development problems will be evident during early childhood. For example, conduct problems can occur during early childhood, but often they often do not appear until adolescence (Advisory Group on Conduct Problems, 2009). A recent review of the impact of health and education policies in the United States found that the benefits of policies and programmes that support children throughout early childhood, during school and when they transition to adulthood did not diminish as they got older (Hendren & Sprung-Keyser, 2020).

I know I can trust someone; I can talk to someone, and I know they will always have my back.
(young person from Wellington, Office of the Children's Commissioner & Oranga Tamariki, 2019, p. 40.)

Not being properly cared for during childhood

Adverse early life experiences can lead to poor mental health, development of behavioural problems and offending in later childhood, which can make it hard for children to stay engaged in school (Lambie et al., 2022). Crichton et al (2015) found that children who had experienced abuse or neglect, spent time in care of child protection services, or had a parent who received a community or custodial sentence were more likely to be on a benefit, in the justice system themselves, or to not have completed their schooling by the age of 21.

Growing up in a household where the child was a victim of abuse or neglect or was placed in out-of-home or state care has been found to increase the likelihood of the child offending before the age of 14 (Lambie et al., 2022). Such children were also two to three times more likely to be frequent and serious offenders as adults. Similarly, children who had a parent in prison were 10 times more likely to experience time in prison themselves (Gluckman & Lambie, 2018). Offenders and ex-offenders typically have lower educational qualifications, find it difficult to make and maintain positive social connections, and have trouble obtaining employment. It is therefore not unusual for them to experience persistent low income, exclusion, or deprivation in adulthood.

7.3 Experiencing exclusion or deprivation at home

Being deprived of the resources and opportunities that a child needs to support their positive development can increase the risk of the child experiencing persistent disadvantage later in life (Ministry of Social Development, 2018). A lack of resources at home (including poor housing conditions, or an absent parent or caregiver) may make it harder for a child to be successful at school and gain the qualifications they need to live independently when they are older.

The kids suffer from asthma and because it's quite cold and it's damp, they get sick quite regularly during the winter.
(Autumn, Garden et al., 2014, p. 17)

If there's not enough money for lunches for school the next day, we keep them home, we don't send them to school with no lunches.
(Tina, Garden et al., 2014, p. 32)

Access to resources helps children grow and develop

A recent Growing Up in New Zealand (GUINZ) study identified children who had limited access to resources (for example, low income, lack of maternal education, parents not in employment, and living in an overcrowded home) from babyhood to eight years of age (Prickett et al., 2022). The authors found that 10% of the children had below-average resources for most of their first eight years. Their parents reported that these children had high levels of depression, anxiety, and aggressive behaviours during their first eight years, compared with parents of children who had access to above-average level of resources. In addition to impacts on their behaviour, the parents of children who experienced below-average resources reported their children had worse health at eight years of age.

By the time they were in school, the children identified by the GUINZ study who had access to the least resources during early childhood had less well-developed skills needed to think, learn, remember, reason, and pay attention, compared with the children who had access to above-average resources for most of their childhood.

Lower parental education and sole-parent households are associated with having fewer resources during childhood

A parent's lack of qualifications has been found to contribute to their children experiencing disadvantage in childhood. People with lower qualifications often get paid less than people with higher qualifications, which may make it harder for them to provide the resources and opportunities a child needs to support their positive development (Ministry of Social Development, 2018).

Prickett et al. (2022) calculated that children of mothers with no school qualifications were up to 100 times more likely to have had the least number of resources during early childhood. In addition, children who grow up income poor or in a household where their parents lack high school qualifications had increased probability of not achieving high school qualifications themselves. In Aotearoa New Zealand, adults who do not have a high school qualification are more likely to have poorer employment and health outcomes that increase their risk of experiencing disadvantage (Ministry of Social Development, 2018). A father's qualifications also matter for a child's development. Dickson et al. (2016) and Jeong et al. (2018) found that fathers with higher qualifications are linked to better health, development and education outcomes among their children in a variety of settings, including low-, middle-, and high-income countries.

Growing up in a sole-parent family may affect a child's attainment of educational qualifications, their likelihood of becoming a "young" sole parent and of being income poor (Friesen et al., 2008; Ministry of Social Development, 2018). Drawing on data from the Christchurch Health and Development Study, Friesen et al. (2008) found that a "second generation" young family (where the parent in the study was under the age of 25 at the birth of their first child) was more likely to experience material hardship (combining measures of deprivation and exclusion), have no or low qualifications, and be unemployed.

7.4 Not having a clear cultural identity and sense of belonging

A sense of identity and belonging is important for the wellbeing of adults, as well as children (Stuart & Jose, 2014), and can be passed (or not) onto future generations. Intergenerational disadvantage “extends beyond the transmission of economic and material impoverishment to encompass the contextual circumstances that contribute to its perpetuation” (Hancock et al., 2013, p. 23). For example, the ongoing impacts of colonisation and discrimination mean that many Māori experience the absence of mana tuku iho, which leads to intergenerational disadvantage.

...kāore ratou i te mōhio ko wai rātou, nō hea rātou, ko wai ō rātou iwi. I have seen multiple generations of Māori defendants before the courts who do not know who they are, where they come from, and which iwi they belong to. There has long been this intergenerational loss of identity in the courts and it is a huge challenge for them to find their way back.

(Participant in wananga, Haemata Limited, 2021, p. 9)

Iwi that suffered a higher proportion of land loss have lower contemporary rates of te reo Māori proficiency and cultural connection than iwi that retained more land at the end of the 19th century (Thom & Grimes, 2022). Globally, the oppression experienced by indigenous people over generations manifests itself as historic and intergenerational trauma (Aguiar & Halseth, 2015; Bishop et al., 2003). In Aotearoa New Zealand, Māori have experienced this trauma in distinct ways – from the ongoing loss of connection to place, culture and language due to the land alienation and cultural assimilation policies that were part of colonisation, to current-day institutional racism, discrimination, and negative stereotyping (Haemata Limited, 2022; Pihama, 2017; Waitangi Tribunal, 1999).

Children can feel excluded by others because of their identity, which can impact their engagement in society, especially at school.

There is a difference in the educational cycle that Māori go through, traditionally, non-Māori were taught to go to school and get a qualification, and then have a career, and then have a family. Māori have a very different educational cycle... we go to school and often struggle in a mainstream schooling system, this leads to a lack of motivation, and we eventually drop out, we have a family early and as a result, our employment is often sporadic. We often become second chance learners later in life...

(Participant in wananga, Haemata Limited, 2021)

7.5 Growing up income poor and facing barriers to growing prosperity

One area in which attempts have been made to better measure the incidence of intergenerational disadvantage is in relation to being income poor. Several studies in Aotearoa New Zealand, a few of which are reported here, have attempted to measure intergenerational income mobility. These studies used different methods and different data sources for measuring intergenerational income mobility, which makes it hard to produce a single estimate of the prevalence of intergenerational income poverty in New Zealand.

Iusitini (2022) used data from the Christchurch Health and Development Study to examine intergenerational mobility between family income quintiles (each comprised 20% of the study population). He found that one in three children (33%) whose parents' family income (averaged over their childhood) was in the lowest income quintile were themselves in the lowest family income quintile as an adult. About one in ten children (13%) moved from the lowest family income quintile in childhood to the highest income quintile in adulthood.

Brown (2022) found a similar rate of intergenerational income mobility using Inland Revenue tax data in the Integrated Data Infrastructure. Brown compared the adult child's income at age 30 with their parents' income when the child was aged 15–19. Brown found intergenerational income persistence for children in the lowest family income quintile was 30%, while the likelihood of these children moving into the highest family income quintile by age 30 was 11%.

Children who grew up in the highest family income quintile had a better chance of still being there in adulthood. Just over a third of children (37%) who were in the highest family income quintile when the child was 15–19 years old were still there by age 30, and nearly half of them (49%) were in the highest three family income deciles.

Brown, as reported in Hughes (2022), looked at whether intergenerational income mobility varied by where a child grew up in Aotearoa New Zealand. He found that income mobility by age 30 years was highest for children born in Auckland, Wellington and the South Island, and lowest in Hawke's Bay, Gisborne, Bay of Plenty and Northland.

Parental education is associated with transmitting intergenerational disadvantage and advantage

Using New Zealand Longitudinal Census data, Iusitini (2022) found that the sons of parents with no or only school qualifications experienced greater income mobility than other parental qualification or income levels. This indicates that having parents with low income, or no or only school qualifications may not hold a child back from better incomes as an adult. He also found that sons of parents with degree qualifications and higher average incomes experienced intergenerational transmission of "advantage", in that they were much more likely to continue to have a higher average income as an adult.

Brown (2022) also found a relationship between parental income and their child's qualifications at age 23. Between 40–50% of children whose parents were in the top family income quintile, had achieved a university degree or higher, compared to only 10–15% of children whose parents were in the lowest family income quintile.

A similar finding was reported by the OECD's 2012 Survey of Adult Skills (OECD, 2022). They found a "stickiness at the bottom" of the educational attainment distribution, with 31% of 25- to 64-year-olds in Aotearoa New Zealand whose parents did not achieve high school qualifications having low educational attainment (lower secondary or less) themselves, which was below the OECD average. However, this group still had intergenerational mobility in qualifications, with 40% achieving a tertiary-level qualification, which was among the highest in the OECD.

Lusitini (2022) estimated that three-quarters of intergenerational income persistence among children in the Christchurch Health and Development study could be explained by their non-cognitive traits (conduct and/or anxiety problems), cognitive skills (IQ score at eight to nine years old, reading ability at age 18) and educational attainment by age 40. In effect, children from higher-income families were more likely to continue their education than children from low-income families, perpetuating either low-income or high-income persistence in the next generation.

Other research has focused on the likelihood of benefit receipt as adults by children who grew up living in a household or family reliant on welfare benefits as the primary source of income (Crichton et al., 2015; Maloney et al., 2003; Pacheco & Maloney, 2003). Maloney et al. (2003) found that between one-third and two-thirds of children whose parents received a benefit also received a benefit in adulthood. They concluded that a partial (about one-quarter of the effect) explanation for this was the lower educational attainment of children raised in welfare-dependent households.

8 Future research / next steps

Key points

- We found it challenging to estimate the extent of persistent disadvantage in Aotearoa New Zealand because of a lack of longitudinal data, and it was impossible for us to quantify intergenerational disadvantage.
- A better solution is needed to measure and monitor persistent disadvantage in Aotearoa New Zealand.
- Stats NZ's Living in Aotearoa survey presents an opportunity to regularly measure and report on persistent disadvantage, starting in 2026.
- Further research and data investment is needed to understand:
 - how to measure wellbeing and disadvantage over the life course, between generations and within communities
 - how people become persistently disadvantaged, and what helps them avoid or escape disadvantage.

Through our inquiry and analysis, presented in this report, we have identified areas where further data investment and research is needed to improve the measurement of persistent disadvantage, and to understand why different people experience disadvantage and what support would help them to escape. This chapter suggests potential data improvements and research that would help improve our understanding of persistent disadvantage in Aotearoa New Zealand.

8.1 More data investment is needed to measure and understand wellbeing and disadvantage

We found it challenging to estimate the extent of persistent disadvantage in Aotearoa New Zealand because of a lack of longitudinal data. The novel approach used in the A Fair Chance for All inquiry to construct a longitudinal dataset has many limitations. These included a narrow range of indicators for measuring the disadvantage domains, a limited number of years to assess whether an individual was experiencing persistent disadvantage, and the inability to measure persistent disadvantage for a range of different population

groups and communities. Finally, the data approach used in the inquiry was unable to measure persistent disadvantage between generations.

The difficulties of linking datasets and the associated data limitations makes this approach an unsuitable platform for the ongoing measurement and monitoring of persistent disadvantage in Aotearoa New Zealand. Fortunately, Stats NZ's Living in Aotearoa survey creates an opportunity to regularly measure and report on persistent disadvantage, starting in 2026 (see [Box 2](#) earlier in the report for more information about the design of the survey). However, the Living in Aotearoa survey will only follow individuals for six years, which will limit its ability to establish trends in wellbeing over the life course or across generations.

The lack of suitable data was highlighted in our final inquiry report. Recommendation 20 included the need to "...invest in data collection for measuring wellbeing and disadvantage over the life course, between generations, and within communities" (NZPC, 2023a, p. 130).

The recommendations made in the report included two actions around data collection.

Invest in data collection to allow wellbeing and disadvantage to be measured over the life course and between generations

Investment in the collection of this data is needed to expand the measurement of different domains of disadvantage, such as being left out (for example, discrimination, lack of social connection, lacking a sense of identity and belonging, and exclusion from community participation), and set up longer-term survey panels to allow the persistence of wellbeing and disadvantage to be measured over the life course and between generations.

Prioritise work programmes that capture community-level data

This could include improving existing surveys and using existing government administrative data to provide more detailed information about persistent disadvantage among specific communities (for example, by ethnicity, location, or age), or it could include working with communities to help them collect their own data and information.

8.2 Future research needed to understand how to support people experiencing disadvantage

In addition to improving how persistent disadvantage is measured, this report has identified further areas where research is needed to better understand people's experience of disadvantage and what changes would help them to escape.

Disadvantage indicators need to be validated by the people experiencing persistent disadvantage

A key finding in the final inquiry report (NZPC, 2023a, p. 107) was the importance of understanding the lived realities of individuals, whānau and communities experiencing persistent disadvantage. This also applies to how we measure persistent disadvantage. Further work is needed to validate the indicators chosen to measure disadvantage, to ensure they reflect the needs and challenges of people living in Aotearoa New Zealand. For example, people's needs change during their lifetime, including the types of life events that can lead to people experiencing disadvantage. Having a job and the income it provides can mean people are less likely to be income poor, do without, or be left out. However, employment may play a less important role in explaining why younger and older people may be experiencing disadvantage. Younger people may not be working because they are still studying, and older people may have retired. It may be necessary to develop a suite of indicators that can be used to estimate persistent disadvantage at different points in an individual's life, as well as in different communities.

Many factors can help explain why someone is experiencing persistent disadvantage

The analysis in this report has identified a wide range of factors associated with people experiencing persistent disadvantage that we were unable to include in measuring persistent disadvantage. For example, the analysis found that having poor health and distrust in institutions were strongly related to life satisfaction. Another strong finding was the role of cultural identity in protecting people from experiencing disadvantage, which can also expose individuals to a range of negative outcomes if there is a breakdown in cultural affiliation. Further research is needed to understand the role different factors play in creating persistent disadvantage in Aotearoa New Zealand, but also in preventing it.

Understanding the reasons people enter and exit disadvantage

The analysis in this report has identified a wide range of factors associated with people experiencing persistent disadvantage that we were unable to include in measuring persistent disadvantage. For example, the analysis found that having poor health and distrust in institutions were strongly related to life satisfaction. Another strong finding was the role of cultural identity in protecting people from experiencing disadvantage, which can also expose individuals to a range of negative outcomes if there is a breakdown in cultural affiliation. Further research is needed to understand the role different factors play in creating persistent disadvantage in Aotearoa New Zealand, but also in preventing it.

Consider using WELLBY values in policy and programme development and assessment

We recommend consideration be given to developing wellbeing year (WELLBY) values for use in policy and programme development and assessment in Aotearoa New Zealand (for detailed discussion on WELLBY values, see [Box 8](#)).

Box 8. A next step: Developing wellbeing years values for use in policy and programme development and assessment

In the final report for our A Fair Chance for All inquiry, we noted that Gross Domestic Product (GDP), the typical measure used for monitoring economic growth, does “not capture the full picture of society’s prosperity or what citizens value for their quality of life” (NZPC, 2023a, p. 45). Although the report recommends broadening and embedding a wellbeing approach, including more use and development of Treasury’s Living Standards Framework and He Ara Waioira, and improving the ability of the public management system to use evidence and learn, it does not explore potential headline measures to supplement or complement GDP.

One possibility would be to adopt the wellbeing years (WELLBY) approach. The United Kingdom supplementary green book guidance (2021) defines a WELLBY as a one-point change in life satisfaction on a 0–10 scale, per person per year. Based on the average life satisfaction, one year of good health is worth 6–7 WELLBYs.

The WELLBY approach provides a means “to assess policy options in terms of their net effect on years of human wellbeing” (De Neve et al., 2020, p. 1). WELLBYs can also be “monetised” for use within cost-effectiveness analysis or cost-benefit analysis. For example, losing their job has been found to reduce a person’s life satisfaction by 0.5 to 0.7 (Frijters et al., 2020). Being diagnosed with depression or anxiety reduces it by 0.7. These figures would be multiplied by the number of years a person is affected to establish the WELLBY value.

The Treasury’s most recent “CBAX User Tool Guidance” (The Treasury, 2022a) supports WELLBYs as a measure of changes in subjective wellbeing in cost-benefit analysis or cost-effectiveness analysis. The guidance provides a monetisation value for the WELLBY but provides very limited guidance or evidence as to what policies or interventions can affect life satisfaction and subjective wellbeing. Our analysis has identified some specific relationships between different types of disadvantage and persistent disadvantage and subjective wellbeing, which could usefully be translated into WELLBY values to use in policy and programme development in the future. They could also be used to strengthen the guidance described above.

Commonly used terms

Term	Description
Disadvantage	<p>Disadvantage (mauri noho or languishing) is not simply income poverty or low income, but rather the absence of mauri ora. Our definition of disadvantage sets out three domains that align with the absence of mauri ora:</p> <ul style="list-style-type: none">• being left out (excluded or lacking identity, belonging and connection)• doing without (deprived or lacking the means to achieve aspirations)• being income poor (income poverty or lacking prosperity).
Incidence	<p>The number of people in a specific population who newly develop or acquire a specific characteristic (for example, being income poor or going without meat) over a particular time period.</p>
Intergenerational disadvantage	<p>Persistent disadvantage that occurs across the life course of an individual or family can spill over to the next generation as intergenerational disadvantage – that is, children born into persistent disadvantage may get stuck there into adulthood.</p>
Likelihood ratio	<p>The likelihood that an individual or household would experience persistent disadvantage because of a specific characteristic (for example, being unemployed) compared to the likelihood that an individual or household experiences persistent disadvantage without that characteristic (for example, being employed).</p> <p>A likelihood ratio of two for someone who is unemployed means they are two times more likely to experience persistent disadvantage, compared to a person who is not unemployed or in employment.</p>
Overcrowded household	<p>The proportion of the population living in housing who require one or more additional bedrooms, as defined by the Canadian National Occupancy Standard, which includes the following criteria:</p> <ul style="list-style-type: none">• No more than two people per bedroom• Parents or couples share a bedroom

- Children aged under five years, either of the same or opposite sex, may reasonably share a bedroom, as may children aged under 18 years of the same sex
- A child aged five to 17 years should not share a bedroom with a child aged under five of the opposite sex
- Single adults aged 18 years and over and any unpaired children require a separate bedroom.

Peak working-age households

Generally referred to as working-age households in this report. Households where at least one adult living in the household is aged 25–64.

Note: In our interim report, working-age population was defined as 18–64 years old.

Persistent disadvantage

Disadvantage that is ongoing for two or more years.

Prevalence

The number of new and existing people in a specific population who have a specific characteristic (for example, being income poor or having a disease) at a particular point in time or during a particular time period.

Rainbow

We followed the Treasury (2022) in adopting the term rainbow, as per the rainbowtick.nz definition, to refer to people who identify as lesbian, gay, bisexual, transgender, takatāpui or intersex.

Temporary disadvantage

Temporary disadvantage is short term, occurring over a timeframe of less than two years.

Working-age households

Households where at least one adult living in the household is aged 25–64.

Note: In our interim report, working-age population was defined as 18–64 years old.

Working-age population

Adults aged 25–64.

Note: In our interim report, working-age population was defined as 18–64 years.

Acronyms used

Acronym	Description
Complex D	Experiencing two or three domains of disadvantage at one point in time
Complex PD	Experiencing two or three domains of disadvantage in both 2013 and 2018
DHB	District Health Board
GSS	General Social Survey
GUINZ	Growing up in New Zealand
HEDI	Household equalised disposable income
HES	Household Economic Survey
HH	Household
IDI	Integrated data infrastructure
NEET	Not in education, employment, or training
OR	Odds ratio
Ref group	Reference or comparison group (in regression analysis)
Simple D	Experiencing any one domain of disadvantage at one point in time
Simple PD	Experiencing any one domain of disadvantage in both 2013 and 2018
SOFIE	Survey of Family, Income and Employment
WAHH	Working-age household (at least one adult aged 25–64)
WELLBY	Wellbeing year

Appendix A

Technical details of our disadvantage and persistent disadvantage datasets

As noted in [Chapter 2 Creating the datasets for our analysis](#), due to a lack of readily available longitudinal data, we constructed our own (imperfect) “longitudinal” dataset to assess the incidence of persistent disadvantage.

This appendix provides technical details on our approach.

We identified people who experienced persistent disadvantage across all three domains

Since the interim report for our A Fair Chance for All inquiry (NZPC, 2022a), we have further expanded our analysis of the incidence of persistent disadvantage,³⁶ to include two measures of doing without from the 2013 and 2018 Censuses. We also linked the 2013 and 2018 Census data with Household Economic Survey (HES) data from 2016–2021 to provide a better description of people’s experience of persistent disadvantage.³⁷

By linking with administrative data for their income, we were able to add a third point-in-time measurement of being income poor.

We identified people who experienced persistent disadvantage at more points in time

As a result, we could identify people who experienced persistent doing without or being left out at two points in time (2013 and 2018), and people who experienced being persistently income poor at three points in time (2013, 2018, and 2016–2021, depending on the year that the individuals in the household completed the HES).

The resulting dataset provides a representative sample of 52,000 individuals (see [Table 13](#)). This includes all individuals who were linked to both Censuses. We used individual characteristics (age, gender, ethnicity,³⁸ and disability status), the characteristics of the family they lived with, and the characteristics of the household they lived in (family type, household structure, household tenure, household’s highest qualification, household working status and household geographical location) to describe people experiencing persistent disadvantage. Except for disability (which was only available in the 2018 Census), the demographic, family and household characteristics were based on the individual’s

³⁶ The incidence of persistent disadvantage we describe here should not be confused with reporting on the number of people experiencing persistent disadvantage each year, which we could not analyse due to a lack of data.

³⁷ We excluded earlier years of the HES (pre-2015/2016), as the data did not include the same measures, due to a change in the questionnaire. The HES survey year generally begins in July and concludes at the end of June. For example, the 2016 HES year includes individuals interviewed between 1 July 2015 and 30 June 2016. For convenience, we refer to the 2015/2016 to 2020/2021 HES as 2016–2021 HES throughout and use similar simplifications for the GSS.

³⁸ Note that ethnicity is based on multiple responses, so individuals could select more than one ethnicity and households could be composed of multiple ethnicities.

characteristics in 2013, but subsequent changes in their status were considered. We used the "individual" (or "people") as the unit of analysis, to better examine the clustering in individual characteristics that goes beyond household – for instance, accounting for the fact that people could change their family or household characteristics over time.

Table 13 HES-Census linked dataset

HES year	HES only		Linked to both 2013 & 2018 Census		Retention rate (%)	Notes
	All quarters	Selected quarters for linking	All	In WAHH		
	(1)	(2)	(3)	(4)	(3)/(2)	
2016	8,301	8,301	5,109	4,020	61.5	
2017	8,811	6,720	3,972	3,165	59.1	First three quarters only
2019	51,744	28,641	14,922	12,339	52.1	Last two quarters only
2020	39,138	39,138	20,400	16,815	52.1	Final quarter not collected due to COVID-19
2021	39,321	39,321	19,371	16,119	49.3	Impacted by COVID-19
Total	160,479	135,285	63,774	52,458		

Notes:

1. Data covers all individuals with household information.
2. Due to some quality issues in the 2018 Census, we only keep individuals from households with Census individual forms and individuals on the household listing and drop households with any potential errors identified by Stats NZ (from duplicates, missing data, poor imputation matrix, age error). The retention rates have already accounted for the missing and unreliable data in both the HES and Census. There was a reduction in sample size after the 2019 HES year due to COVID-19.
3. The quarter selection in the 2017 and 2019 HES is to assure the one-year time gap between two data points.
4. Working-age households (WAHH) include at least one person aged between 25 and 64 (in both Census years).
5. The average reference population is 4.55 million people, of which 3.83 million people lived in working-age households in both Censuses.
6. Counts are randomly rounded to the base three following the Stats Confidentiality Rules.

HES data for deprived and excluded measures was only collected from one household member

Although the HES income questionnaire was completed for every member of the household over the age of 15, and the demographic questionnaire was completed for everyone in the household, the material wellbeing questionnaire – which includes most of the HES measures we examined in this report – is completed by “one randomly selected usual resident aged 18 years or over from the household”.³⁹ As a result, the responses of that one individual were applied across all members in the whole household. By contrast, the General Social

³⁹ Stats NZ. (2023, March 23). Child poverty statistics: Year ended June 2022 – technical appendix. Retrieved July 18, 2023, from <https://stats.govt.nz/methods/child-poverty-statistics-year-ended-june-2022-technical-appendix/#hes>

Survey (GSS) was completed by all individuals, and the responses were analysed as individual responses.

Another difference between the HES, Census and GSS datasets is with respect to gender. Within the HES and Census datasets, gender essentially identifies the count or proportion of females and males within a household. Hence, we cannot report on disadvantage or persistent disadvantage by gender using the HES or Census datasets. However, the GSS collected responses from individuals for analysis, so we can report on differences in disadvantage and wellbeing between the genders using the GSS datasets.

We considered specific types and combinations of disadvantage and persistent disadvantage

We refer to types and combinations of disadvantage and persistent disadvantage domains in a few different ways.

Given we were limited to seven measures across three domains in the Census, we generally considered the domains individually, referring to them by name, and then in combinations, called “simple persistent disadvantage”, “complex persistent disadvantage” and “persistent disadvantage in one or more domains”.

Table 14 outlines the domains and combinations of domains we considered in this report.

Table 14 Domains and combinations of domains of disadvantage (D) and persistent disadvantage (PD) analysed for this report

Domain/s	What does this mean?
Income poor	<60% of median household equivalised income before housing costs per person (denoted as <60% HEDI)
Doing without (Deprived)	In Census: 1 of 2 items In HES: 3 or more of 15 items In GSS: 2 or more of 7 items
Left out (Excluded)	In Census: 1 of 4 items In HES: 2 or more of 12 items In GSS: 4 or more of 18 items
Simple D or simple PD	D or PD in 1 domain only (if it is simple PD, it is the same domain both times)
1 or more of the 3 domains	D or PD in 1 or more domains (PD is in the same domain both times)
Complex D or complex PD	This is D or PD in 2 or 3 domains (PD is in the same domains both times)

During the peer-review process for this report, other methods for reporting persistent disadvantage were proposed, such as counting the number of measures for deprived or excluded (out of six) that a person/household was experiencing or using income poverty with the experience of any of the six available measures for deprived or excluded. However, we continued to use the domain model in this report, given it had the best fit with our mauri ora or wellbeing approach. Also, we wanted to explore differences and similarities between those people experiencing the different domains of disadvantage and persistent

disadvantage. Alternative configurations for reporting on disadvantage and persistent disadvantage were analysed in Ta (forthcoming).

Differences in the data used between the inquiry's interim and final reports

As noted above, in the interim report we limited our measurement of the incidence of persistent disadvantage to being income poor or left out, as we did not have access to measures for doing without.

There were a few other changes between the interim and final reports.

- For the interim report, we used the entire Census population, including all under 65 years old in 2013. In the final report, we only considered people living in working-age households in both the 2013 and 2018 Censuses, provided we could link them to the 2016–2021 HES. As a result, the population used in the interim report was younger and had a higher proportion of Māori, Pacific people, and sole parents.
- In the interim report, we used family as the unit of analysis for defining family working status and qualifications, and to compute a family equivalised income. In the final report, we used household as the unit of analysis (household equivalised income, household's working status, etc) because this is consistent with other reporting by Stats NZ and Treasury.
- We adjusted our definition of sole parent and working status. For the interim report, we used Stats NZ's definition of sole parent (including all single parents living with children, regardless of their child's age) and the self-reported employment status in the Census to define the working status of the family. In the final report, we used self-employment income from Inland Revenue to define working status of the household, not family. Sole parent refers to single parents living with children aged under 18 years (dependent children). Children aged 18 years or older were included in the family with all adults or adult children only.
- In the interim report, we could not analyse the persistence of doing without, because the measures we used were only available at one point in time (in the 2018 Census). For this report, we have constructed an "overcrowded household" measure in the 2013 Census, which is comparable to the measure used in the 2018 Census, the HES and the GSS, and we have included the "no heating" measure to both 2013 and 2018 Census data. To ensure consistency in the analysis of persistence for the two time periods, we have removed the three measures we used in the interim report (living in damp housing, living in mouldy housing and lack of basic amenities) from the 2018 Census data for this report.
- We used a larger set of doing without measures (15 in total) and being left out measures (12 in total) from the HES data to broaden our understanding of New Zealanders' experiences of doing without and being left out.

The changes make it somewhat difficult to directly compare the demographic differences between the samples used in the interim and the final reports. However, the likelihood of having persistent disadvantage by demographics remained largely unchanged.

We used cross-sectional data to explore trends and experiences of disadvantage

We analysed trends in temporary disadvantage in Aotearoa New Zealand in all three domains using the 2016–2021 HES dataset. This allowed us to track changes in disadvantage of people with similar characteristics, such as ethnicity and gender (the group characteristics stay the same, but the individuals within the group change over time). This is an accepted alternative to using longitudinal data that follows the same individuals (Guillerm, 2017).

We used GSS data to expand our understanding of how individuals experience disadvantage

We supplemented the analysis of exclusion and wellbeing measures using HES data with analysis of two combined GSS datasets (2014–2016–2018 and 2016–2018) with linked administrative household income data. At the time of analysis, the 2020/2021 GSS dataset was not linked with the Integrated Data Infrastructure (IDI).

We did not consider persistence using GSS by linking it with Census data, because the GSS sample sizes were too small (approximately 8,500 every two years) for this type of analysis to be successful. Similarly, we could not combine the data from the HES and GSS into one dataset, as the number of households completing both surveys was too small to be able to undertake meaningful analysis.

Unlike the 2016–2021 HES dataset, which is focused on all individuals in households, the two combined GSS datasets are based on individuals who responded to the material wellbeing questions that provided the deprived and excluded measures used in this report.

Our investigation of disadvantage using the HES and GSS data incorporated basic descriptives (cross-tabulations of measures), principal component analysis, and various forms of regression analysis (for example, logistic with coefficient or odds ratio, ordered logistic, linear). Further details on the development of the datasets and additional analysis are available in Ta (forthcoming) and Riggs (forthcoming).

When measuring disadvantage, we found that using the combined 2014–2018 GSS or the linked Census and HES datasets gave similar results, despite containing some different measures that contributed to each disadvantage domain.

Disadvantage measures used in the analysis

We chose disadvantage measures based on data availability and measures used in other studies

We relied on existing measures within the 2013 and 2018 Census, the 2016–2021 HES and the 2014–2018 GSS to identify people who were experiencing disadvantage or persistent disadvantage. Within these datasets, we selected and categorised our initial set of measures for analysis based on the work of Saunders and his colleagues on persistent disadvantage in Australia (Saunders & Wong, 2012, 2014). We also drew on work by Treasury, including McLeod (2018) and Crichton & Nguyen (2022), who examined factors associated with wellbeing in Aotearoa New Zealand. Following data cleaning, principal component analysis, and collinearity checks, we refined our measures and determined the thresholds for measurement as described in Ta (forthcoming) and Riggs (forthcoming) and discussed briefly in the sections that follow.

The HES and GSS surveys did not ask respondents how well, or if, these measures could or should be considered as indicators of wellbeing or disadvantage, as was done in Australia for the surveys analysed by Saunders et al. (2007) and Saunders & Wong (2012). As a result, in addition to the measures we identified in section 2.2, we may be missing other measures considered essential or important to respondents for living their lives well, or we may have included measures they would not consider relevant to disadvantage.

Income poor

Because we linked administrative data from the IDI with our Census, HES and GSS datasets to calculate HEDI per person before housing costs, we had the same measure for being income poor, irrespective of which dataset was used for analysis.

HEDI replaces the family equivalised taxable income used in the interim report. Carter et al (2014) noted the wide agreement of using household disposable income, rather than household gross taxable income, because it better “reflects the money available to households and their standard of living” (p. 2). In Aotearoa New Zealand, disposable income includes all taxable sources of income and benefits, plus re-distributive non-taxable income such as Working for Families tax credits and the accommodation supplement. As noted in [Box 9](#), we do not make a distinction between source of income and the likelihood or rate of income poverty in this paper.

The “equivalised household” part of the measure represents the fact that people tend to share income within a household. While there are different methods for determining equivalisation among household members, we used the modified OECD equivalence scale to match the measures used by the government statistician, Stats NZ.

Within Aotearoa New Zealand, HEDI is used by Stats NZ to report on household incomes and housing costs and child poverty,⁴⁰ by the Ministry of Social Development (Perry, 2021, 2022) for non-income reporting and child poverty monitoring, and by Treasury in its recent reports and analysis on wellbeing (Hughes, 2022b; Stephens, 2022; The Treasury, 2022c).

⁴⁰ For example, [Stats NZ household income and housing costs 2022](#) and [Stats NZ child poverty statistics 2022](#).

Box 9. Source of income influences whether or not a household experiences disadvantage – but earning income does not preempt disadvantage

Our analysis does not differentiate between households reliant on the Government (for example, jobseeker benefit or superannuation) for income and households dependent on earning wages or salaries. Perry (2022) demonstrated that, while being dependent on a benefit as the main source of income in a household was more likely to mean the household experienced disadvantage (assessed using different income and material hardship measures), working and earning a salary or wage did not necessarily mean the household did not experience disadvantage.

Similarly, using 2021 HES data, Hughes (2022b) found that there were almost as many households in Aotearoa New Zealand in material hardship (measured using New Zealand's Dep17 index) whose primary income source was salary or wages, compared with those whose primary income source is the Government.

Stephens (2022) used Treasury's Tax and Welfare Analysis model with 2020 child poverty data to examine how many families were income poor (defined as having less than 50% of household median equivalised disposable income either before housing costs or after housing costs) or experiencing some or extreme material hardship. Stephens (2022) found that "not all beneficiaries are in [income] poverty, and not all children in [income] poverty are in beneficiary families" (p. 2). Stephens (2022) estimated that similar numbers of children in working families were in income poverty (either before or after housing costs) as children in beneficiary families – approximately 129,000 in both cases.

Perry (2022) provides further detailed discussion about source of income, income poverty and material hardship in households and families, including the observation that "for many households, full-time paid employment on its own does not provide enough for the household even at a very basic level, especially where there are children" (p. 28).

Doing without (deprived)

Being limited to two doing without measures, both related to housing conditions, was less than desirable in the process of fully understanding either disadvantage or persistent disadvantage in Aotearoa New Zealand. The larger set of doing without measures in the HES dataset (15 in total), and the seven measures in the GSS datasets, helped to broaden our understanding of New Zealanders' experiences of doing without. The measures we used are identified in the "doing without" panel in [Table 15](#).

Table 15 Measures and thresholds used to define disadvantage and persistent disadvantage in the doing without and being left out domains

Measures from 2013 and 2018 Censuses	Measures from the 2016–2021 HES	Measures from the 2014–2018 GSS
Doing without (deprived)		
<p>People with one of two measures:</p> <ul style="list-style-type: none"> • Overcrowded household • No heating 	<p>People with three or more out of 15 measures:</p> <ul style="list-style-type: none"> • Gone without fresh fruit and vegetables a lot • Put up with feeling cold • Major problem heating home in winter • Major mould or dampness in home • Delay repairing/replacing appliances a lot • Feel limited by money in buying clothes/shoes for self • Overcrowded household, one or more bedrooms needed • No two pairs of suitable shoes due to the cost • No home contents insurance due to cost • No meat or equivalent at least every second day due to cost • Buy less meat than would like to a lot • Cannot pay \$500 unexpected expenses • Late to pay rent or mortgage • Late to pay car insurance • Received help from community 	<p>People with two or more out of seven measures:</p> <ul style="list-style-type: none"> • Gone without fresh fruit and vegetables a lot • Put up with feeling cold • Dwelling is colder in winter than would like • Major mould or dampness in home • Delay replacing/repairing appliances a lot • Feel limited in buying clothes/shoes for self • Overcrowded household, one or more bedrooms needed
Left out (excluded)		
<p>People with one of four measures:</p> <ul style="list-style-type: none"> • Jobless household • No high school qualification in household • No internet • No motor vehicles 	<p>People with two or more of 12 measures:</p> <ul style="list-style-type: none"> • Jobless household • No high school qualification the household • No computer with internet access • No access to car/van • Inadequate income to cover basic needs (subjective measure) • Late to pay utilities/rates 	<p>People with four or more of 18 (or five or more of 22) measures:</p> <ul style="list-style-type: none"> • Jobless household • No high school qualification in household • Inadequate income to cover basic needs (subjective measure) • Late to pay utilities/rates • Done without / cut back on trips to the shops/local places

Measures from 2013 and 2018 Censuses	Measures from the 2016–2021 HES	Measures from the 2014–2018 GSS
	<ul style="list-style-type: none"> • Done without / cut back trips to shops/local places a lot • Postponed doctor visits a lot • No suitable clothes for special days due to cost • No giving gifts on special days due to cost • Borrow from family/friends to meet living costs • No family get-together due to cost 	<ul style="list-style-type: none"> • Postponed doctor visits a lot • Not enough contact with family • Not enough contact with friends • Hard to talk with someone if depressed • Hard to ask someone for a place to stay in an emergency • Experienced discrimination in last 12 months (~12 types of discrimination and situations) • Hard to be yourself • Felt lonely much/all of the time in last four weeks • Lack of safety due to neighbourhood problems: <ul style="list-style-type: none"> • Noise/vandalism • Burglary • Assaults • Harassment • Drugs <p>Feel unsafe:</p> <ul style="list-style-type: none"> • <i>Home alone at night</i> • <i>Walking alone in neighbourhood after dark</i> • <i>Waiting for/using public transport at night</i> • <i>Victim of crime in last 12 months</i>

Notes:

1. Persistent disadvantage would then be defined as being disadvantaged at two points in time (with at least 24 months gap), examined by domain (persistently excluded, being excluded in both years).
2. Except for the 2013 Census data for doing without (where there are only two measures), the prevalence of being income poor, doing without and being left out are each around 15–18% at each point in time.
3. There are 18 exclusion measures using the 2014–2016–2018 GSS dataset. There are 22 exclusion measures (*extra measures shown in italics*) in the 2016–2018 GSS dataset. Hence, we had two different thresholds for being excluded: four out of 18 measures using the 2014–2018 GSS, and five out of 22 measures using the 2016–2018 GSS.

Being left out (excluded)

Less racism would give me less anxiety and more confidence to increase my participation and potential as a citizen and become a more active member of my community. This would not only enhance my life and my family's prospects but also be beneficial to my wider community.

(quote from ethnic minority participant, Human Rights Commission, 2022, p. 68)

The four measures we used from the 2013 and 2018 Censuses to assess being persistently excluded in this report were the same as the ones we used in the interim report for the inquiry: whether an individual lived in a jobless household, had no high school (or other) qualifications in the household, no access to a motor vehicle, and no internet access (see first column in “left out” panel in [Table 15](#)). Because they were generally less relevant to their overall wellbeing (and therefore not a good indicator of disadvantage), no high school qualifications and jobless households were not counted for households where all adults in the household were aged 65+ years, and who were, for the most part, retired from paid employment and/or receiving superannuation payments from the Government.

As discussed above, we drew on the HES and GSS data to expand the number and range of measures used in our analysis of being excluded for this report. In particular, the additional left out measures in the GSS (see the third column in [Table 15](#)) meant we could consider the contribution of social connections, sense of identity and belonging, discrimination, and safety (specifically, personal safety, neighbourhood safety and victimisation) to the experience of disadvantage in Aotearoa New Zealand.

Demographics, life events and circumstances

We focused on New Zealanders in peak working-age households (at least one adult aged 25–64 years)

We separated New Zealanders living in households with all adults aged 18–24 and all adults aged 65+ from our primary analysis. This is because these two populations are quite different to those in the households where at least one adult is aged 25–64 years (what we call “peak working-age households”, or more simply “working-age households”).⁴¹ Overall, the needs and resources of these two groups are likely to be more diverse than those of the working-age population.

⁴¹ In the interim report (NZPC, 2022) we defined “working-age population” as aged 18–64. Also, for different reasons, Stats NZ typically identifies working-age population as encompassing people aged 15–64. Our focus on disadvantage has affected our definition.

Our limited measures of persistent disadvantage would have defined those from households with all adults aged 65+ years as being persistently income poor and “left out” by default, simply because their primary income was government superannuation, and they were likely retired or not working. The existing population of people aged 65+ years have lived in an era where post-secondary education and internet access were less necessary for them to achieve wellbeing or to thrive.

Similarly, those from households with all adults aged 18–24 were more likely to appear income poor, deprived or excluded because they were likely to be in full-time education, not fully participating in the labour force, or at the early stages of their career and earning an entry-level (low) income. They were also more likely to change households, as they left home to form new households.

We have defined a working-age household as including at least one adult aged 25–64. A working-age household may also have included other adults aged 18–24, 65+, and children under the age of 18 years, or “adult children” (over 18 years of age). We flagged all such households in our analysis as a check to see that this did not create significant differences in our results.

Children have been considered as part of the household, rather than separately

We have not duplicated existing work on children and youth arising from the Child Poverty Reduction Act 2018, Child and Youth Wellbeing Strategy and Programme of Actions. Instead, we consider children (aged below 18 years) in the context of the household they live in. To provide further insights, we included their own characteristics, including age, gender, ethnicity, and disability, as well as information about the family or household they lived in, such as family type (sole parent or couple parents), the household’s highest qualifications, or the household’s working status.

Population demographics

We included a range of population characteristics to describe the types of individuals, families and households who experienced disadvantage or persistent disadvantage.

[Table 16](#) lists the different types of population characteristics we used in the analysis and the categories within them.

Table 16 Population characteristics examined in our datasets

Characteristic	Categories	HES / Census	GSS
At person level			
Ethnicity	European, Māori, Pacific, Asian, Other	Y	Y
Age (1)	18–24, 25–64 (working age), 65+ years	Y	Y
Age (2)	Under 13, 13–17, 18–24, 25–34, 35–44, 45–54, 55–64, 65+ years	Y	Y
Gender	Female, Male	Y	Y
Disability status (at person level)	Disabled, Not disabled	Y	
Family type	Couple only, Couple parents (with children under 18), Parents with adult children only, Sole parent (with children under 18 years old), Unrelated people in household	Y	Y
Number of families in household	One family, Multiple families	Y	Y
Housing tenure	Owner/trust, Private renters, Public renters (renting from local authority, Kāinga Ora or other central government agency/enterprise), Not renters or owners	Y	Y
Urban/rural	Metro urban, Other urban, Rural		Y
Regional group	Auckland (DHB district), Waitemata (DHB district), Counties Manukau (DHB district), Wellington, Bay of Plenty/Gisborne/Northland, Rest of North Island (Hawke’s Bay/Manawatū-Wanganui/Taranaki/Waikato), Canterbury, Rest of South Island	Y	Y
Health status (self-reported)	GSS only: 5-point scale from poor to excellent		Y
Highest qualification in household	University (NCEA L7+), Post-secondary (NCEA L4-6), High school (NCEA L1-3), No school	Y	Y
Labour-force status in household	Working, Not working	Y	
Individual labour-force status	Employed, Not employed, Not in labour force		Y

Life events and circumstances related to entry into and exit from disadvantage

The available data limited the types of life events or changes in circumstances we saw were associated with people and households who entered or exited disadvantage.

Experiencing a life event

- Change in job status from working to not working, or vice versa.
- Change in housing tenure from renting to owning, or vice versa.

Transitioning from one stage of the life course to the next

- Change in relationship status (couple to single, or couple parents to sole parent, and vice versa).
- Change in household type (couple to couple parents (with child under 18), couple to single, etc).
- Change in qualifications and/or change in work status.
- Change in work status and ageing to 65+ years (a proxy for retirement).

The following life events or changes in circumstances were missing from our datasets, or we only had limited information in the GSS dataset.

- Experiencing discrimination or racism.
- Being a victim of crime (experiencing violence or abuse).
- Self-reported health status (Excellent, Very Good, Good, Fair, Poor).
- Having a long-term / chronic physical or mental illness or injury (missing).
- Being incarcerated or having other contact with the justice system (missing).
- Being affected by harmful alcohol, drug, or gambling use (missing).

Box 10. There are known risks for some populations and communities we could not report on

As noted above, there is a range of population groups not well represented in current data collections that may be at risk of high levels of disadvantage or persistent disadvantage.

Rainbow communities

Stats NZ⁴² reported that people in the rainbow community were more likely than the rest of Aotearoa New Zealand's population to have lower personal disposable income, to be renters, and to have minor or major problems with mould and dampness in their accommodation. Stats NZ observed that their high levels of renting and lower disposable income could be partially explained by the fact that 56.2% of the rainbow population was under age 35, compared to 29.9% of the overall population of New Zealand. Stats NZ also found people in the rainbow community were more than twice as likely as other New Zealanders to experience daily feelings of depression.

The independent Identify survey of rainbow youth aged 14–26 found that three-quarters of respondents had poor levels of wellbeing, and experienced bullying, harassment, or other aggression in high school, tertiary education, or workplace settings. In the last year, over half of participants had engaged in self-harm, almost two-thirds of participants had thought about suicide, almost a third had planned to kill themselves, and one in ten had attempted suicide (Fenaughty et al., 2022).

Pacific communities

As noted in [Chapter 4 Who experiences persistent disadvantage?](#), we found Pacific people experienced higher risk of disadvantage and persistent disadvantage compared with the overall working-age population. In [Box 5](#), we described the characteristics of the Pacific population that may have contributed, in part, to their experiences. However, there is also a well-known lack of information on the respective risks and experiences of people from the 17 Pacific nations residing in Aotearoa New Zealand (see for example Rohorua et al., 2022; The Treasury, 2023)

Asian communities

As noted in [Chapter 4 Who experiences persistent disadvantage?](#), people categorised as “Asian” were doing well overall. But people within the 40 ethnic groups living in Aotearoa New Zealand that were broadly categorised as “Asian” in the 2018 Census have diverse histories and risk factors, and their experiences with disadvantage or persistent disadvantage were not reflected in data, research, or policy. As an example of the potential disparities, the Asian Family Services (Sub. DR119) noted that Indian Asians and Chinese people had higher standardised all-cause mortality rates than the overall Asian (or New Zealand) population, as well as provided evidence of various Asian subgroups' experiences of discrimination and poor mental health in high school.

People living in some regions, particularly those with small populations

Trust Tairāwhiti independently surveyed local residents using standard questions from the GSS. They found that almost 20% of respondents in Tairāwhiti often struggled to pay their bills, compared to 9% of respondents nationally. Rates of people in Tairāwhiti experiencing discrimination were more than double the national average.⁴³

⁴² Stats NZ. (2021, November 12). LGBT+ population of Aotearoa: Year ended June 2020. Retrieved July 18, 2023, from www.stats.govt.nz/reports/lgbt-plus-population-of-aotearoa-year-ended-june-2020

⁴³ Trust Tairāwhiti. (n.d.). Tairāwhiti Wellbeing Data. Retrieved July 18, 2023, from www.tairawhitidata.nz/

We could not measure some factors contributing to disadvantage

Some aspects of disadvantage and persistent disadvantage are missing from the data available for this report. These include being excluded because of a lack of access to services and support (or “service exclusion”), and/or a lack of access to participation in the local community and public engagement. Wealth is another factor that may decrease a person’s risk of experiencing persistent disadvantage. Wealth can prevent things getting worse or allow people to move out of disadvantage by helping them respond (for example, by funding further education or training).⁴⁴

In some cases, we used proxies for service exclusion, but these focused on being excluded due to the cost of service rather than other factors affecting access to services. We also identified other potential measures in both the GSS and other administrative data that we did not have the resources to analyse for this report.

Measures of service access

The available measures associated with service exclusion in this report are focused solely on costs (and, as such, could be considered in the doing without domain), but we know that service exclusion could also be due to a lack of transport, lack of availability, etc. The GSS included an intermittent module in 2018, which asked about ease of access to key public facilities/services, such as supermarkets / convenience stores, doctors / medical centres, parks / green spaces, and public transport. However, due to the small sample size involved, this provided limited evidence for our analysis.

We identified other mechanisms for analysis of access – for example, incorporating data from the Longitudinal Business Dataset and/or the Health Survey (specifically for access to health), but this was beyond the reach of this report.

Measures of community and public engagement and participation

Other intermittent GSS modules incorporated some engagement measures, such as whether a respondent voted, and why they did not (if applicable), in the 2014 or 2017 General Elections. The modules also asked about memberships in various types of groups or clubs and volunteering. Given constrained time and resources, we were not able to include these in the analysis. This would have been limited, in any case, due to the small sample sizes involved.

⁴⁴ We did include housing tenure, which distinguishes people in households who were renting vs people in households who owned their home. In Aotearoa New Zealand, owning your own home is one indication of “accumulated” wealth, but other forms of wealth have not been included in this report.

Measures of wealth

We do not specifically include measures of wealth, because of an absence of data to measure its persistence (and a lack of time to construct a measure for it, for temporary disadvantage). Wealth is important in providing security to individuals and their families in the event of something happening that could lead to disadvantage or persistent disadvantage. Wealth in one generation may also support another generation by providing greater resources and opportunities. Wealth also accumulates over an individual's or family's life course and is therefore highly likely to be part of the reason the 65+ age group did not experience persistent disadvantage to the same degree as other population groups in Aotearoa New Zealand.

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List of Tables

Table 1 Percentage of population group experiencing persistent disadvantage in specified domains in both 2013 and 2018 (working-age households)	10
Table 2 Temporal dimensions of disadvantage	20
Table 3 Actual income vs subjective income (HES 2019–2021 values).....	32
Table 4 Prevalence of measures contributing to disadvantage and persistent disadvantage in both Censuses	40
Table 5 Further characteristics of sole parent families, Māori or Pacific people experiencing persistent disadvantage (PD).....	60
Table 6 Moving in and out of being income poor was fairly common.....	68
Table 7 Disadvantage (D) entry and exit rates between 2013–2018 (in percent).....	71
Table 8 Probability of experiencing some selected life events between 2013 and 2018	74
Table 9 Evidence of effect of housing conditions on hospitalisation nights and deaths, 2010–2017	78
Table 10 Disadvantage and mean life satisfaction by three age groups (2014–2018 GSS) 84	
Table 11 Ordered logit regression analysis of life satisfaction against disadvantage indices	85
Table 12 Mean life satisfaction in HES based on the disadvantage state in two Censuses	87
Table 13 HES-Census linked dataset.....	106
Table 14 Domains and combinations of domains of disadvantage (D) and persistent disadvantage (PD) analysed for this report	107
Table 15 Measures and thresholds used to define disadvantage and persistent disadvantage in the doing without and being left out domains.....	112
Table 16 Population characteristics examined in our datasets	116

List of Figures

Figure 1	Mauri ora – creating a fair chance for all	18
Figure 2	Domains of disadvantage and their relationship with the four dimensions of mauri ora	19
Figure 3	Persistent disadvantage across three domains (using seven measures) in 2013 and 2018.....	39
Figure 4	Percentage of people still income poor.....	41
Figure 5	Prevalence of disadvantage and persistent disadvantage by domain.....	43
Figure 6	Incidence and distribution of experiencing persistent disadvantage for specific population groups	47
Figure 7	Relative risk of experiencing persistent disadvantage by specific population groups	48
Figure 8	Proportion of people having temporary and persistent income poverty.....	50
Figure 9	Rates of experiencing simple or complex persistent disadvantage by personal and household characteristics.....	51
Figure 10	Incidence of different types of disadvantage in various Aotearoa New Zealand population age groups.....	55
Figure 11	Rates of disadvantage in 2016–2021 HES compared with status of disadvantage in 2013 and 2018 Censuses.....	66
Figure 12	Explaining entry into and exit from disadvantage.....	70
Figure 13	Subjective wellbeing measures by complexity of disadvantage	83

List of Boxes

Box 1. Why is the Productivity Commission concerned with persistent disadvantage?	16
Box 2. What we already know about quantifying disadvantage and persistent disadvantage in Aotearoa New Zealand.....	21
Box 3. The tensions between quantifying deficits and taking a strengths-based approach	26
Box 4. Perceptions of disadvantage can vary from persons to person	32
Box 5. The Pacific population differs from the average New Zealand population	53
Box 6. Younger and older households had different experiences of disadvantage and persistent disadvantage	55
Box 7. The cycle of disadvantage can lead to persistent disadvantage or even intergenerational disadvantage	91
Box 8. A next step: Developing wellbeing years values for use in policy and programme development and assessment.....	101
Box 9. Source of income influences whether or not a household experiences disadvantage – but earning income does not pre-empt disadvantage	111
Box 10. There are known risks for some populations and communities we could not report on.....	118