Auckland Council
Te Kaunihera o Tāmaki Makaurau

Date: **Monday 24 April 2023**

Annual Budget 2023-2024

Kaipātiki Local Board

WRITTEN FEEDBACK Vol. 4
(15164 – 15424)

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15164

Annual Budget 2023/2024

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Submitter details

Organisation (if applicable):

Your local board: Kaipātiki

Your feedback

1. Operating spending reductions

Auckland Council have already decided to reduce costs by simplifying management structures and sharing resources more across the Council group (including Auckland Transport and other Council Controlled Organisations).

Our proposal to save $130 million would also require us to make other reductions, including:

- Maintaining the currently reduced number of public transport services (as of December 2022) for 2023/2024 to save $21 million
- Reducing our funding to Tataki Auckland Unlimited to save $17.5m, with some effects on service delivery and pricing at venues it manages such as Auckland Zoo, Auckland Art Gallery, and stadiums and venues in Auckland
- Reducing regional services such as community and education programmes, regional events, economic development, and other social services activities such as homelessness funding, community empowerment and funding for youth centres to save $22 million
- Reducing local board funded activities across all boards to save $16 million
- Reducing regional grants to save $6 million
- No longer directly providing early childhood education services to save $1 million.

What is your preference on the proposed operating cost reductions?
Do not proceed with any reductions and instead further increase rates and/or debt

Tell us why, and which reductions you would <u>not</u> proceed with if any:

2. Amending Auckland International Airport Limited (AIAL) Shareholding Policy

Our proposed budget includes a planned change to the AIAL shareholding policy. This will allow us to sell some or all our shares in AIAL.

Selling all our shareholding (currently around 18% of shares in Auckland Airport) would reduce our debt by an estimated $1.9 billion. This would reduce interest costs on our debt by around $88 million per year, which is greater than what we'd expect to earn from the dividends if we kept the shares.

We have also considered other options, including both keeping all our shares and a partial sale that reduces our shareholding while maintaining at least 10 per cent (a so-called "blocking stake"). These options would contribute less towards our budget reduction target and require other actions – most likely by further increasing rates or debt (within existing policy limits).

What is your preference on this proposal to change the AIAL shareholding policy to enable the sale of all Auckland Council's shares? Don't change the policy, keep all our shares and further increase rates and/or debt

Tell us why: Wayne brown needs to resign he is not fit to be mayor. The way you have worded this survey shows implicit bias and fear baiting

3. Managing rates and debt

To help with our budget challenge, we propose a total rates increase for the average value residential property of around **4.66 per cent or $154 a year** (around $3 a week) and to increase our use of debt by up to **$75 million** in 2023/2024.

Rates

Our proposed 4.66 per cent total rates increase would be achieved by:

- An average increase in general rates of 7.0 per cent across all existing properties, including non-residential
- Reducing the Natural Environment Targeted Rate (NETR) and Water Quality Targeted Rate (WQTR) by around two thirds and using the money we have already collected from these targeted rates to continue delivering these work programmes as planned in 2023/2024
- Pausing our change to the split between business and residential rates. Under our current policy, annual increases to general rates for business properties are less than for non-business (residential and farm/lifestyle) properties, so that over time the share of general rates paid by business properties is fairer. Our proposal is to put this change on hold for one year

Debt

We propose to increase our use of debt by up to $75 million for 2023/2024. This will be used to fund some capital expenditure (assets such as roads, pipes and buildings) that is currently planned to be funded by operating revenue (such as rates and user charges). This will free up that operating revenue to help address our budget shortfall.

What is your preference on our proposal to manage rates and debt? Proceed with the proposed increases to rates (4.66 per cent overall for the average value residential property) and debt (up to $75 million of additional debt)

Tell us why:

4. Storm Response

The impacts of the recent storm events beginning on Auckland Anniversary weekend could be substantial over time and we don't yet know the full costs.

Changes to our investment in land, infrastructure, buildings and equipment will be needed. Some new investments will be delayed so we can undertake urgent repairs and replacements.

Additionally, from 2023/2024, we are proposing to increase our operating budgets by around $20 million each year to improve our ability to prepare for and respond to future storms. This would likely require rates to increase for 2023/2024 by around an additional 1 per cent (on top of the 4.66 per cent increase proposed to address our budget shortfall).

What is your preference on our proposal to manage the impact of future storms? Proceed with the proposal to increase our operating budget by around $20 million each year

Tell us why:

5. Local Boards

Kaipātiki Local Board

It is proposed to reduce funding by $16 million across all local boards which will impact the activities and services delivered by local boards. Given this possible reduction in funding, **what do you think of our proposed priorities for services and activities in this local board in 2023/2024?** I support all priorities

Tell us why: Richard hill understands his community and should be mayor

If funding for local board activities is reduced, which three of our services do you not want to reduce funding for? (i.e. which are most important to you?) Community climate action and sustainability, Environmental restoration and pest control, Protection and restoration of local waterways

Tell us why these are most important to you: We are in a climate crisis

If funding for local board activities is reduced, which three of our services would you be prepared to have funding reduced for? (i.e. which are least important to you?):

6. Changes to other rates and fees and charges

We are proposing some changes to targeted rates as set out in the following table. The changes are mainly to ensure we are covering the necessary costs. If we do not proceed with the changes then the general rates increase may need to be higher than we have proposed.

Waste management rates changes	
Cost changes in waste management, including: a) a 10.6 per cent base rate increase, b) an option for a new 80L bin in the former Auckland City Council and Manukau City Council areas (80L bin price will be $143.71), and c) an increase to the 240L refuse bin price (from $254.15 to $287.41).	Do not support
Introduce a one-off fee of $40 for those residents wishing to change their bin size.	
Extend the food scraps targeted rate to the new areas that will receive the service this year.	
Changes to other rates	
Swimming Pool/Spa Pool Fencing Compliance Targeted Rate: increases to reflect the actual costs of the service, and an increase in the fee for follow up inspections.	I don't know
Change which bus services are funded by the Climate Action Targeted Rate from what was planned, to ensure that we can continue to deliver the climate and service outcomes for which the CATR was established.	I don't know

What do you think of these proposals? Can you please ask Wayne to resign

7. What else is important to you?

Do you have feedback on any other issues, including:

• Local board decision-making over local community services (page 53 in the consultation document).

• Tūpuna Maunga Authority Operational Plan 2022/2023 (page 53 in the consultation document).

• Changes to fees and charges (page 53 in the consultation document).

Or is there anything further you would like to give feedback on?

Wayne resigning

Important privacy information

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15256

Annual Budget 2023/2024

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Your local board: Kaipātiki

Your feedback

1. Operating spending reductions

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Our proposal to save $130 million would also require us to make other reductions, including:

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- Reducing local board funded activities across all boards to save $16 million
- Reducing regional grants to save $6 million
- No longer directly providing early childhood education services to save $1 million.

What is your preference on the proposed operating cost reductions?
Do not proceed with any reductions and instead further increase rates and/or debt

Tell us why, and which reductions you would <u>not</u> proceed with if any:

2. Amending Auckland International Airport Limited (AIAL) Shareholding Policy

Our proposed budget includes a planned change to the AIAL shareholding policy. This will allow us to sell some or all our shares in AIAL.

Selling all our shareholding (currently around 18% of shares in Auckland Airport) would reduce our debt by an estimated $1.9 billion. This would reduce interest costs on our debt by around $88 million per year, which is greater than what we'd expect to earn from the dividends if we kept the shares.

We have also considered other options, including both keeping all our shares and a partial sale that reduces our shareholding while maintaining at least 10 per cent (a so-called "blocking stake"). These options would contribute less towards our budget reduction target and require other actions – most likely by further increasing rates or debt (within existing policy limits).

What is your preference on this proposal to change the AIAL shareholding policy to enable the sale of all Auckland Council's shares? Don't change the policy, keep all our shares and further increase rates and/or debt

Tell us why:

3. Managing rates and debt

To help with our budget challenge, we propose a total rates increase for the average value residential property of around **4.66 per cent or $154 a year** (around $3 a week) and to increase our use of debt by up to **$75 million** in 2023/2024.

Rates

Our proposed 4.66 per cent total rates increase would be achieved by:

- An average increase in general rates of 7.0 per cent across all existing properties, including non-residential
- Reducing the Natural Environment Targeted Rate (NETR) and Water Quality Targeted Rate (WQTR) by around two thirds and using the money we have already collected from these targeted rates to continue delivering these work programmes as planned in 2023/2024
- Pausing our change to the split between business and residential rates. Under our current policy, annual increases to general rates for business properties are less than for non-business (residential and farm/lifestyle) properties, so that over time the share of general rates paid by business properties is fairer. Our proposal is to put this change on hold for one year

Debt

We propose to increase our use of debt by up to $75 million for 2023/2024. This will be used to fund some capital expenditure (assets such as roads, pipes and buildings) that is currently planned to be funded by operating revenue (such as rates and user charges). This will free up that operating revenue to help address our budget shortfall.

What is your preference on our proposal to manage rates and debt? Set a higher general rates increase and make less use of debt

Tell us why:

4. Storm Response

The impacts of the recent storm events beginning on Auckland Anniversary weekend could be substantial over time and we don't yet know the full costs.

Changes to our investment in land, infrastructure, buildings and equipment will be needed. Some new investments will be delayed so we can undertake urgent repairs and replacements.

Additionally, from 2023/2024, we are proposing to increase our operating budgets by around $20 million each year to improve our ability to prepare for and respond to future storms. This would likely require rates to increase for 2023/2024 by around an additional 1 per cent (on top of the 4.66 per cent increase proposed to address our budget shortfall).

What is your preference on our proposal to manage the impact of future storms? Proceed with the proposal to increase our operating budget by around $20 million each year

Tell us why:

5. Local Boards

Kaipātiki Local Board

It is proposed to reduce funding by $16 million across all local boards which will impact the activities and services delivered by local boards. Given this possible reduction in funding, **what do you think of our proposed priorities for services and activities in this local board in 2023/2024?** I do not support any priorities

Tell us why:

If funding for local board activities is reduced, which three of our services do you not want to reduce funding for? (i.e. which are most important to you?)

Tell us why these are most important to you:

If funding for local board activities is reduced, which three of our services would you be prepared to have funding reduced for? (i.e. which are least important to you?):

6. Changes to other rates and fees and charges

We are proposing some changes to targeted rates as set out in the following table. The changes are mainly to ensure we are covering the necessary costs. If we do not proceed with the changes then the general rates increase may need to be higher than we have proposed.

Waste management rates changes	
Cost changes in waste management, including: a) a 10.6 per cent base rate increase, b) an option for a new 80L bin in the former Auckland City Council and Manukau City Council areas (80L bin price will be $143.71), and c) an increase to the 240L refuse bin price (from $254.15 to $287.41).	Do not support
Introduce a one-off fee of $40 for those residents wishing to change their bin size.	
Extend the food scraps targeted rate to the new areas that will receive the service this year.	
Changes to other rates	
Swimming Pool/Spa Pool Fencing Compliance Targeted Rate: increases to reflect the actual costs of the service, and an increase in the fee for follow up inspections.	Do not support
Change which bus services are funded by the Climate Action Targeted Rate from what was planned, to ensure that we can continue to deliver the climate and service outcomes for which the CATR was established.	Support

What do you think of these proposals?

7. What else is important to you?

Do you have feedback on any other issues, including:

• Local board decision-making over local community services (page 53 in the consultation document).

• Tūpuna Maunga Authority Operational Plan 2022/2023 (page 53 in the consultation document).

• Changes to fees and charges (page 53 in the consultation document).

Or is there anything further you would like to give feedback on?

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15264

Annual Budget 2023/2024

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Submitter details

Organisation (if applicable):

Your local board: Kaipātiki

Your feedback

1. Operating spending reductions

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- Reducing local board funded activities across all boards to save $16 million
- Reducing regional grants to save $6 million
- No longer directly providing early childhood education services to save $1 million.

What is your preference on the proposed operating cost reductions?
Do not proceed with any reductions and instead further increase rates and/or debt

Tell us why, and which reductions you would <u>not</u> proceed with if any: Most of these services need support.

2. Amending Auckland International Airport Limited (AIAL) Shareholding Policy

Our proposed budget includes a planned change to the AIAL shareholding policy. This will allow us to sell some or all our shares in AIAL.

Selling all our shareholding (currently around 18% of shares in Auckland Airport) would reduce our debt by an estimated $1.9 billion. This would reduce interest costs on our debt by around $88 million per year, which is greater than what we'd expect to earn from the dividends if we kept the shares.

We have also considered other options, including both keeping all our shares and a partial sale that reduces our shareholding while maintaining at least 10 per cent (a so-called "blocking stake"). These options would contribute less towards our budget reduction target and require other actions – most likely by further increasing rates or debt (within existing policy limits).

What is your preference on this proposal to change the AIAL shareholding policy to enable the sale of all Auckland Council's shares? Don't change the policy, keep all our shares and further increase rates and/or debt

Tell us why: It's a large generation of income, always has.

3. Managing rates and debt

To help with our budget challenge, we propose a total rates increase for the average value residential property of around **4.66 per cent or $154 a year** (around $3 a week) and to increase our use of debt by up to **$75 million** in 2023/2024.

Rates

Our proposed 4.66 per cent total rates increase would be achieved by:

- An average increase in general rates of 7.0 per cent across all existing properties, including non-residential
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Debt

We propose to increase our use of debt by up to $75 million for 2023/2024. This will be used to fund some capital expenditure (assets such as roads, pipes and buildings) that is currently planned to be funded by operating revenue (such as rates and user charges). This will free up that operating revenue to help address our budget shortfall.

What is your preference on our proposal to manage rates and debt? Make greater use of debt

Tell us why: It can be profitable if done correctly in the long run

4. Storm Response

The impacts of the recent storm events beginning on Auckland Anniversary weekend could be substantial over time and we don't yet know the full costs.

Changes to our investment in land, infrastructure, buildings and equipment will be needed. Some new investments will be delayed so we can undertake urgent repairs and replacements.

Additionally, from 2023/2024, we are proposing to increase our operating budgets by around $20 million each year to improve our ability to prepare for and respond to future storms. This would likely require rates to increase for 2023/2024 by around an additional 1 per cent (on top of the 4.66 per cent increase proposed to address our budget shortfall).

What is your preference on our proposal to manage the impact of future storms? Do not proceed with the proposal

Tell us why: Central should assist in this area

5. Local Boards

Kaipātiki Local Board

It is proposed to reduce funding by $16 million across all local boards which will impact the activities and services delivered by local boards. Given this possible reduction in funding, **what do you think of our proposed priorities for services and activities in this local board in 2023/2024?** I don't know

Tell us why:

If funding for local board activities is reduced, which three of our services do you not want to reduce funding for? (i.e. which are most important to you?)

Tell us why these are most important to you: Community & Educational services

Public transport services

ECE services

Local board funds

If funding for local board activities is reduced, which three of our services would you be prepared to have funding reduced for? (i.e. which are least important to you?):

6. Changes to other rates and fees and charges

We are proposing some changes to targeted rates as set out in the following table. The changes are mainly to ensure we are covering the necessary costs. If we do not proceed with the changes then the general rates increase may need to be higher than we have proposed.

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Introduce a one-off fee of $40 for those residents wishing to change their bin size.	
Extend the food scraps targeted rate to the new areas that will receive the service this year.	
Changes to other rates	
Swimming Pool/Spa Pool Fencing Compliance Targeted Rate: increases to reflect the actual costs of the service, and an increase in the fee for follow up inspections.	Support
Change which bus services are funded by the Climate Action Targeted Rate from what was planned, to ensure that we can continue to deliver the climate and service outcomes for which the CATR was established.	Support

What do you think of these proposals? N/A

7. What else is important to you?

Do you have feedback on any other issues, including:

• Local board decision-making over local community services (page 53 in the consultation document).

• Tūpuna Maunga Authority Operational Plan 2022/2023 (page 53 in the consultation document).

• Changes to fees and charges (page 53 in the consultation document).

Or is there anything further you would like to give feedback on?

Cut cost on consultants - AC tends to contract work to consultants rather than paying their staff.

Important privacy information

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15412

Annual Budget 2023/2024

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Submitter details

Organisation (if applicable):

Your local board: Kaipātiki

Your feedback

1. Operating spending reductions

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- Reducing local board funded activities across all boards to save $16 million
- Reducing regional grants to save $6 million
- No longer directly providing early childhood education services to save $1 million.

What is your preference on the proposed operating cost reductions?
Do not proceed with any reductions and instead further increase rates and/or debt

Tell us why, and which reductions you would <u>not</u> proceed with if any:

2. Amending Auckland International Airport Limited (AIAL) Shareholding Policy

Our proposed budget includes a planned change to the AIAL shareholding policy. This will allow us to sell some or all our shares in AIAL.

Selling all our shareholding (currently around 18% of shares in Auckland Airport) would reduce our debt by an estimated $1.9 billion. This would reduce interest costs on our debt by around $88 million per year, which is greater than what we'd expect to earn from the dividends if we kept the shares.

We have also considered other options, including both keeping all our shares and a partial sale that reduces our shareholding while maintaining at least 10 per cent (a so-called "blocking stake"). These options would contribute less towards our budget reduction target and require other actions – most likely by further increasing rates or debt (within existing policy limits).

What is your preference on this proposal to change the AIAL shareholding policy to enable the sale of all Auckland Council's shares? Proceed with the proposal to enable the sale of all our shares in AIAL and use the proceeds to reduce debt and therefore annual interest costs by around $87 million per year

Tell us why:

3. Managing rates and debt

To help with our budget challenge, we propose a total rates increase for the average value residential property of around **4.66 per cent or $154 a year** (around $3 a week) and to increase our use of debt by up to **$75 million** in 2023/2024.

Rates

Our proposed 4.66 per cent total rates increase would be achieved by:

- An average increase in general rates of 7.0 per cent across all existing properties, including non-residential
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Debt

We propose to increase our use of debt by up to $75 million for 2023/2024. This will be used to fund some capital expenditure (assets such as roads, pipes and buildings) that is currently planned to be funded by operating revenue (such as rates and user charges). This will free up that operating revenue to help address our budget shortfall.

What is your preference on our proposal to manage rates and debt? Set a lower general rates increase and make greater use of debt

Tell us why:

4. Storm Response

The impacts of the recent storm events beginning on Auckland Anniversary weekend could be substantial over time and we don't yet know the full costs.

Changes to our investment in land, infrastructure, buildings and equipment will be needed. Some new investments will be delayed so we can undertake urgent repairs and replacements.

Additionally, from 2023/2024, we are proposing to increase our operating budgets by around $20 million each year to improve our ability to prepare for and respond to future storms. This would likely require rates to increase for 2023/2024 by around an additional 1 per cent (on top of the 4.66 per cent increase proposed to address our budget shortfall).

What is your preference on our proposal to manage the impact of future storms? Do not proceed with the proposal

Tell us why:

5. Local Boards

6. Changes to other rates and fees and charges

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c) an increase to the 240L refuse bin price (from $254.15 to $287.41).	
Introduce a one-off fee of $40 for those residents wishing to change their bin size.	
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Changes to other rates	
Swimming Pool/Spa Pool Fencing Compliance Targeted Rate: increases to reflect the actual costs of the service, and an increase in the fee for follow up inspections.	Do not support
Change which bus services are funded by the Climate Action Targeted Rate from what was planned, to ensure that we can continue to deliver the climate and service outcomes for which the CATR was established.	I don't know

What do you think of these proposals?

7. What else is important to you?

Do you have feedback on any other issues, including:

• Local board decision-making over local community services (page 53 in the consultation document).

• Tūpuna Maunga Authority Operational Plan 2022/2023 (page 53 in the consultation document).

• Changes to fees and charges (page 53 in the consultation document).

Or is there anything further you would like to give feedback on?

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15424

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Organisation (if applicable):

Your local board: Kaipātiki

Your feedback

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- Reducing local board funded activities across all boards to save $16 million
- Reducing regional grants to save $6 million
- No longer directly providing early childhood education services to save $1 million.

What is your preference on the proposed operating cost reductions?
Do not proceed with any reductions and instead further increase rates and/or debt

Tell us why, and which reductions you would <u>not</u> proceed with if any: The proposals would have a significant permanent negative impact on the social fabric of our communities. Investment in youth, community, Maori and pacific wellbeing is critical. There is a wealth of evidence showing the critical contribution of youth and community services and opportunities to thriving, resilient and prosperous communities and economic regeneration.

2. Amending Auckland International Airport Limited (AIAL) Shareholding Policy

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Selling all our shareholding (currently around 18% of shares in Auckland Airport) would reduce our debt by an estimated $1.9 billion. This would reduce interest costs on our debt by around $88 million per year, which is greater than what we'd expect to earn from the dividends if we kept the shares.

We have also considered other options, including both keeping all our shares and a partial sale that reduces our shareholding while maintaining at least 10 per cent (a so-called "blocking stake"). These options would contribute less towards our budget reduction target and require other actions – most likely by further increasing rates or debt (within existing policy limits).

What is your preference on this proposal to change the AIAL shareholding policy to enable the sale of all Auckland Council's shares? Don't change the policy, keep all our shares and further increase rates and/or debt

Tell us why: Increase rates (above the figure proposed). AKL rates are currently unrealtically low compared to the rest of the country and actual costs of delivering local services. It makes no sense to freeze any targetted rates right now.

3. Managing rates and debt

To help with our budget challenge, we propose a total rates increase for the average value residential property of around **4.66 per cent or $154 a year** (around $3 a week) and to increase our use of debt by up to **$75 million** in 2023/2024.

Rates

Our proposed 4.66 per cent total rates increase would be achieved by:

- An average increase in general rates of 7.0 per cent across all existing properties, including non-residential
- Reducing the Natural Environment Targeted Rate (NETR) and Water Quality Targeted Rate (WQTR) by around two thirds and using the money we have already collected from these targeted rates to continue delivering these work programmes as planned in 2023/2024
- Pausing our change to the split between business and residential rates. Under our current policy, annual increases to general rates for business properties are less than for non-business (residential and farm/lifestyle) properties, so that over time the share of general rates paid by business properties is fairer. Our proposal is to put this change on hold for one year

Debt

We propose to increase our use of debt by up to $75 million for 2023/2024. This will be used to fund some capital expenditure (assets such as roads, pipes and buildings) that is currently planned to be funded by operating revenue (such as rates and user charges). This will free up that operating revenue to help address our budget shortfall.

What is your preference on our proposal to manage rates and debt? Other

Tell us why: Increase rates AND increase debt.

4. Storm Response

The impacts of the recent storm events beginning on Auckland Anniversary weekend could be substantial over time and we don't yet know the full costs.

Changes to our investment in land, infrastructure, buildings and equipment will be needed. Some new investments will be delayed so we can undertake urgent repairs and replacements.

Additionally, from 2023/2024, we are proposing to increase our operating budgets by around $20 million each year to improve our ability to prepare for and respond to future storms. This would likely require rates to increase for 2023/2024 by around an additional 1 per cent (on top of the 4.66 per cent increase proposed to address our budget shortfall).

What is your preference on our proposal to manage the impact of future storms? Proceed with the proposal to increase our operating budget by around $20 million each year

Tell us why:

5. Local Boards

Kaipātiki Local Board

It is proposed to reduce funding by $16 million across all local boards which will impact the activities and services delivered by local boards. Given this possible reduction in funding, **what do you think of our proposed priorities for services and activities in this local board in 2023/2024?** I do not support any priorities

Tell us why: Youth, community and environmental services are critical

If funding for local board activities is reduced, which three of our services do you not want to reduce funding for? (i.e. which are most important to you?) Funding arts and culture groups, Community programme delivery, Youth programmes

Tell us why these are most important to you: Investment in these is critical to thriving communities

If funding for local board activities is reduced, which three of our services would you be prepared to have funding reduced for? (i.e. which are least important to you?): Protection and restoration of local waterways, Local waste minimisation initiatives, Local business support

6. Changes to other rates and fees and charges

We are proposing some changes to targeted rates as set out in the following table. The changes are mainly to ensure we are covering the necessary costs. If we do not proceed with the changes then the general rates increase may need to be higher than we have proposed.

Waste management rates changes	
Cost changes in waste management, including: a) a 10.6 per cent base rate increase, b) an option for a new 80L bin in the former Auckland City Council and Manukau City Council areas (80L bin price will be $143.71), and c) an increase to the 240L refuse bin price (from $254.15 to $287.41).	Support
Introduce a one-off fee of $40 for those residents wishing to change their bin size.	
Extend the food scraps targeted rate to the new areas that will receive the service this year.	
Changes to other rates	
Swimming Pool/Spa Pool Fencing Compliance Targeted Rate: increases to reflect the actual costs of the service, and an increase in the fee for follow up inspections.	Support
Change which bus services are funded by the Climate Action Targeted Rate from what was planned, to ensure that we can continue to deliver the climate and service outcomes for which the CATR was established.	Do not support

What do you think of these proposals?

7. What else is important to you?

Do you have feedback on any other issues, including:

• Local board decision-making over local community services (page 53 in the consultation document).

• Tūpuna Maunga Authority Operational Plan 2022/2023 (page 53 in the consultation document).

• Changes to fees and charges (page 53 in the consultation document).

Or is there anything further you would like to give feedback on?

The proposals do not align with AKL Councils responsibility to promote the wellbeing of AKL citizens. They do not align with best practice insights about the investment that supports thriving communities. They do not align with The Treasury wellbeing repo

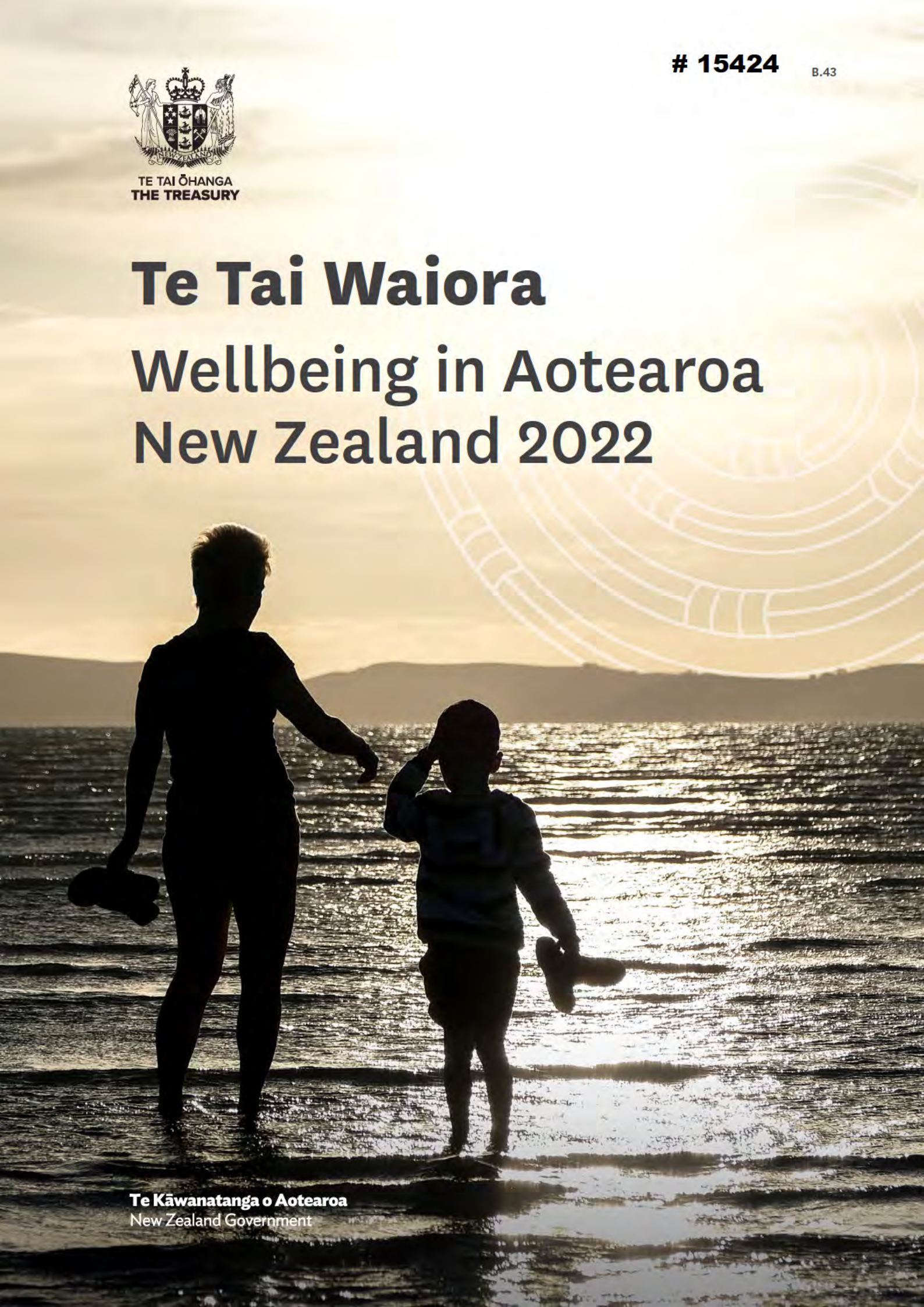
Important privacy information

The personal information that you provide in this form will be held and protected by Auckland Council in accordance with our privacy policy (available at **aucklandcouncil.govt.nz/privacy** and at our libraries and service centres) and with the Privacy Act 1993. The privacy policy explains how we can use and share your personal information in relation to any interaction you have with the council, and how you can access and correct that information. You should familiarise yourself with this policy before submitting this form.

TE TAI ŌHANGA
THE TREASURY

Te Tai Waiora

Wellbeing in Aotearoa New Zealand 2022



Te Kāwanatanga o Aotearoa
New Zealand Government

Te Tai Waiora

The name Te Tai Waiora refers to the tides of wellbeing. This resonates with the Treasury's te reo Māori name, Te Tai Ōhanga, which represents the insights we provide in navigating the 'tides' of the Aotearoa New Zealand economy. Our economy moves in its own cycles and is affected by the shifts of global events. The tides also surround Aotearoa New Zealand, reminding us of the importance of wellbeing in each region and community. Te Tai Waiora also speaks to the Treasury's stewardship role, reflecting how wellbeing shifts and flows over time.

The takarangi

The takarangi (spiral pattern) design that forms a watermark throughout this report is also part of the He Ara Waiora framework. It represents the dynamic way each component of wellbeing interacts with the others. In He Ara Waiora, all the concepts emanate from wairua, and cannot be extracted or considered in isolation.

The takarangi was designed by AATEA (www.aatea.co.nz) and is used with permission.

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SECRETARY'S FOREWORD

At its core, economics is about choice. What do we value? How do we choose between competing priorities? How do we balance the needs of different groups? How do we balance the needs of current and future generations? The purpose of **Te Tai Waiora: Wellbeing in Aotearoa New Zealand 2022** is to inform those choices.

Under the terms of the Public Finance (Wellbeing) Amendment Act, Treasury is required to provide an independent report on the state of wellbeing in New Zealand at least every four years. Te Tai Waiora is the first of these reports.

The report draws on our Living Standards Framework and He Ara Waiora, a Māori perspective of wellbeing, to take a longer, broader, deeper, view of the drivers of wellbeing. Many of those drivers such as income levels, the adequacy of housing and the quality of air and water are quantifiable; others such as the quality of personal relationships and the quality of our institutions are less quantifiable, but still important. There is much we can learn from a Māori view of wellbeing encapsulated by concepts such as manaakitanga (our collective responsibility to care for others) and kaitaiakitanga (guardianship).

Overall, the report tells us that we are healthier, better educated, have higher incomes and are less affected by crime than previous generations. However, there are many areas where we do not perform as well as other developed nations and there are significant differences in wellbeing within Aotearoa New Zealand. One of the most striking insights is that our younger people fare less well on many measures than older people. Compared to many countries, many of our older people are doing well. Younger people fare less well on many metrics.

Younger people fare worse than older people in three priority areas: mental health, educational achievement and housing quality and affordability. The latter is particularly the case for those who do not own their homes.

These differences have consequences not just for the young, but for all New Zealanders. The youth of today are the workers of tomorrow. If our young do not get the education they need to achieve their potential, do not have good mental health and do not have access to healthy, affordable housing we will all pay the price in the longer term.

The report highlights the critical importance of lifting productivity. As noted above, income is not the sole determinant of wellbeing. A 2018 study by the Organisation for Economic Cooperation and Development (OECD) found we rated above the OECD average for life satisfaction, coming in just ahead of Australia and the United Kingdom. However, our ability to provide health, education and welfare services, fund institutions, invest in housing and preserve the natural environment all depend on the economy performing well. Compared with other developed countries in the OECD, our productivity rates are poor. Lifting our productivity is essential to improving services and protecting our environment.

The report also identifies a number of risks to future wellbeing. In addition to declining youth educational performance, increasing psychological distress and poor-quality rental housing, these risks include climate change, the preponderance of natural hazards in New Zealand such as earthquakes, volcanoes, floods and fires, and increasing geopolitical destabilisation. For the first time in recent history, there is a possibility that the next generation won't be better off.

The high impact and unpredictable nature of many of these risks highlights the importance of being flexible, building our resilience and managing our resources in a way that provides buffers against future shocks. Our wellbeing now and in the future will be determined by the choices we make today. By increasing our understanding of the factors that contribute to wellbeing, this report gives decision makers useful information about where to invest scarce resources.

The production of this report has been a major exercise in which the Treasury has been assisted by other government agencies, the OECD, and others. I would like to thank them for their contribution to an important piece of work.

Aspects of wellbeing such as health have been covered in far greater detail in reports by other government agencies and relevant experts. Our hope is that Te Tai Waiora will add to this growing body of knowledge by providing a macro perspective that compares, contrasts and draws links across as many facets of wellbeing as possible.

Alongside the Long-Term Fiscal Statement, Investment Statement and Long-Term Insights Briefing, Te Tai Waiora completes the suite of stewardship reports we have published over the past two years. We invite readers to reflect on the material published in these reports and participate in ongoing public discussion about our progress as a country and our readiness to face future challenges.

Our ambition is that Te Tai Waiora sparks further mahi and kōrero to deepen our understanding, as we reach towards insight and wellbeing, as encapsulated in the following whakataukī:

> **Mā te whakaatu, ka mōhio, mā te mohio ka mārama, mā te mārama ka matau, mā te matau ka ora.**
> *With discussion comes knowledge,*
> *with knowledge comes light and understanding,*
> *with light and understanding comes wisdom,*
> *with wisdom comes wellness.*

Statement of responsibility

I, the Secretary to the Treasury, confirm that the indicators have been selected, and the report prepared, by the Treasury using its best professional judgements.

Ngā mihi nui

Caralee McLiesh
Te Tumu Whakarae mō Te Tai Ōhanga
Secretary to the Treasury

HE WĀHINGA KŌRERO NĀ TE TUMU WHAKARAE

Kei tōna iho, ko te tino kaupapa o te ōhanga ko te kōwhiri. He aha e whai uara ana ki a tātou? Me pēhea tātou e kōwhiri i waenganui i ngā whakaarotau taupatupatu? Me pēhea tātou e whakataurite ai i ngā hiahia o ngā rōpū rerekē? Me pēhea tātou e whakataurite ai i ngā hiahia o ngā whakatipuranga onāianei me ngā whakatipuranga e heke mai nei? Ko te take o **Te Tai Waiora: Wellbeing in Aotearoa New Zealand 2022** kia whaimōhio ai aua kōwhiringa.

I raro i ngā tikanga o te Public Finance (Wellbeing) Amendment Act, e herea ana Te Tai Ōhanga ki te whakarato i te pūrongo motuhake mō te āhua o te toiora i Aotearoa i roto i ngā tau e whā, iti iho rānei. Ko Te Tai Waiora te tuatahi o ēnei pūrongo.

Ka aro atu tā mātou pūrongo ki te Anga Paerewa Oranga me He Ara Waiora, he tirohanga Māori ki te toiora, kia waihanga i te tirohanga roa rawa, whānui rawa, hōhonu rawa hoki ki ngā kōkiritanga o te toiora. Ka taea ētahi o aua kōkiritanga te tatau, pērā i ngā taumata moni whiwhi, te tika o te wharenoho me te kounga o te hau takiwā me te wai; ahakoa he uaua ake te tatau i ētahi atu, pērā i te kounga o ngā whanaungatanga whaiaro me te kounga o ō tātou whakanōhanga, he mea hira tonu. He nui ngā mea hei akoranga mā mātou i tā te Māori titiro ki te toiora e whakatinanahia ai e ngā ariā pērā i te manaakitanga (tō tātou kawenga ngātahi ki te tiaki i ētahi atu) me te kaitiakitanga (te tuaritanga).

Hui katoa, e whakaatu ana te pūrongo kua pai ake tō tātou hauora me te akoranga, he nui ake ngā moni whiwhi, ā, he iti iho te pānga o te taihara i tō ētahi atu whakatipuranga. Heoi anō, tērā ētahi takiwā kāore mātou i te tutuki pai pērā i ētahi atu whenua whanake, ā, tērā ētahi tino rerekētanga i roto i te toiora i Aotearoa. Ko tētahi o ngā māramatanga hira kāore e pērā rawa te pai o ā mātou rangatahi i runga i ngā inenga huhua i tō te hunga pakeke ake. Ina whakatauritea ana ki ngā whenua maha, he pai te tutukitanga o ā mātou kaumātua. E ai ki ngā inenga huhua, kāore e pērā rawa te pai a ngā rangatahi.

E toru ngā takiwā whakaarotau e kino iho ai te tutukitanga o ngā rangatahi i tō te hunga pakeke ake: hauora hinengaro, tutukitanga akoranga me te kounga me te tareka ā-utu o te wharenoho. He tino tika te mea whakamutunga mō te hunga kāore i te whiwhi ki ō rātou ake whare.

He tukunga iho e puta mai ana i ēnei rerekētanga mō te rangatahi, waihoki mō ngā tāngata katoa nō Aotearoa. Ko te rangatahi onāianei ngā kaimahi o āpōpō. Ki te kore ā mātou taitamariki e whiwhi ai ki te akoranga e hiahiatia ana e rātou hei whakatutuki i te pitomata, e whai i te hauora hinengaro pai, ā, e āhei ai ki te wharenoho tareka ā-utu, mā tātou katoa e utu i te mutunga o te rā.

Ka miramira tēnei pūrongo i te hira waiwai o te whakahiki i te māpua. Pērā i te kōrero i runga ake, ehara te moni whiwhi i te whakataunga kau o te toiora. I kitea i roto i tētahi rangahau a te Organisation for Economic Cooperation and Development (OECD) i te tau 2018, i runga paku ake i te toharite OECD tā mātou pāpātanga mō te mākona ki te oranga, i paku hipa i Ahitereiria me Piritānia. Heoi anō, tā mātou āheinga ki te whakarato i te hauora, te mātauranga me ngā ratonga tokoora, te tuku pūtea ki ngā whakanōhanga, te whakangao ki te wharenoho me te tāroki i te taiao māori e hāngai ana ki te pai haere o te ōhanga. Ina whakatauritea ai ki ētahi atu whenua whanake i roto i te OECD, he ngoikore ā mātou pāpātanga māpua. He mea waiwai te whakahiki i tā mātou māpua kia whakapai ake i ngā ratonga me te whakahaumaru i tō tātou taiao.

Ka tautuhi hoki te pūrongo i ētahi tūraru ki te toiora anamata. I tua atu i te hekenga o te tutukitanga akoranga o te rangatahi, te pikinga o te ngaukino ā-hinengaro me te wharenoho rēti kounga kino, kei roto i ēnei tūraru ko te panoni āhuarangi, te nui o ngā mōrearea māori i Aotearoa pērā i ngā rū whenua, ngā puia, ngā waipuke me ngā ahi, me te whakakorenga o te tūwhena whenua tōrangapū e piki haere ana. Kua eke pea ki te wā tuatahi i te hītori nōnakuanei kāore e pai ake te whakatipuranga e whai ake nei i te whakatipuranga onāianei.

Ka miramira te pānga nui me te āhuatanga o te huhua o ēnei mōrea e kore e taea te matapae, i te hiranga o te tāwariwari, te waihanga i tō tātou manawaroa me te whakahaere i ō tātou rauemi kia whakarato ai i ngā tauārai ki ngā whētuki anamata. Ka whakatauhia tō tātou toiora onāianei, ā muri atu hoki mā ā mātou kōwhiringa i ēnei rā. Mā te whakanui i tō mātou māramatanga ki ngā āhuatanga e tāpae ana ki te toiora, ka hoatu tēnei pūrongo i ngā mōhiohio whai take ki te hunga whakatau me whakangao i ngā rauemi ongeonge ki hea.

He mahi nui te whakaputanga o tēnei pūrongo, ā, kua āwhinatia Te Tai Ōhanga e ētahi atu tari kāwanatanga, te OECD, me ētahi atu hoki. Me mihi ka tika ki a rātou mō ā rātou tāpaetanga ki tētahi mahi hira.

Kua kapia rawatia e ētahi atu tari kāwanatanga me ngā mātanga hāngai ētahi āhuatanga o te toiora pērā i te hauora i roto i ētahi atu pūrongo. Ko tō mātou wawata ka tāpiri Te Tai Waiora ki tēnei tinana mōhiotanga e tipu ana mā te whakarato i te tirohanga whārahi e whakataurite ana, e whakatauaro ana me te whiriwhiri mai i ngā hononga i roto i ngā āhuatanga katoa o te toiora e āhei ana.

I te taha o te Tauākī Moni Karioi, te Tauākī Haumitanga, me te Whakamōhiotanga Māramatanga Wā Roa, ka whakaoti Te Tai Waiora i te huinga o ngā pūrongo tuari kua tāngia e mātou i roto i ngā tau e rua kua hipa. Ka tono mātou i ngā kaipānui ki te whakaaro ki ngā kōrero kua tāngia i roto i ēnei pūrongo me te whai wāhi ki te matapaki tūmatanui e haere tonu ana mō tā tātou ahu whakamua hei whenua me tā tātou rite ki te urupare ki ngā wero e heke mai nei.

Ko tō mātou awhero mā Te Tai Waiora e tīmata ai ētahi atu mahi, kōrero hoki kia whakahōhonu i tō mātou mōhiotanga, ina whātoro atu mātou ki te māramatanga me te toiora, pērā i te whakatinanatanga i roto i te whakataukī e whai ake nei:

Mā te whakaatu, ka mōhio, mā te mohio ka mārama, mā te mārama ka matau, mā te matau ka ora.
With discussion comes knowledge,
with knowledge comes light and understanding,
with light and understanding comes wisdom,
with wisdom comes wellness.

Tauākī o te kawenga

Ka whakaae ahau, te Tumu Whakarae mō Te Tai Ōhanga, kua kōwhiria ngā paetohu, ā, kua whakaritea te pūrongo, e Te Tai Ōhanga e whakamahi ana i āna whakataunga ngaio pai rawa.

Ngā mihi nui

Caralee McLiesh
Te Tumu Whakarae mō Te Tai Ōhanga
Secretary to the Treasury

EXECUTIVE SUMMARY

In this report, Te Tai Ōhanga | The Treasury assesses how wellbeing in Aotearoa New Zealand has changed over time, how wellbeing is distributed, how the wellbeing of Māori is evolving, and whether wellbeing is sustainable into the future.

Wellbeing refers to what it means for our lives to go well. It encompasses aspects of material prosperity such as income and GDP. And it also encompasses many other important things such as our health, our relationships with people and the environment, and the satisfaction we take in the experience of life. We at Te Tai Ōhanga | The Treasury consider wellbeing analysis "economics done well", as it creates a more complete picture of societal progress.

Improvements in wellbeing over time

Life in Aotearoa New Zealand has improved in many ways over the past twenty years. Over time we in Aotearoa New Zealand have developed our country's infrastructure, built better institutions, and transformed the economy. This progress has delivered many benefits. For example, we are now healthier and live longer, are safer on our roads and workplaces, and our incomes are far higher than in the past.

Compared to other OECD countries, Aotearoa New Zealand is a good place to live in many ways. We enjoy very clean air, strong relationships, high life satisfaction and have a relatively high level of social cohesion and trust in one another. Those of us currently of working age have very high levels of skills, partly reflecting the fact that many highly-qualified people born in other countries have joined our society over time.

Compared to other OECD countries, Aotearoa New Zealand is a generally good place to live for most older people. Compared to people of the same age in other countries, those of us over 65 have high levels of social support, experience more positive emotions and are less likely to be in poverty. Rates of home ownership are highest among the oldest age groups, most of whom have benefited from substantial growth in house prices over time.

Areas of low or deteriorating wellbeing

However, **Aotearoa New Zealand performs less well on wellbeing for children and young people.** Child poverty rates are declining but there are still many children and young people who have experienced poverty for much of their lives, including many disabled children and children in sole parent families. The evidence suggests that these children are likely to do less well over the course of their lives.

The evidence also suggests that our schools do less well to counteract disadvantage than schools in other countries. Children in our schools are bullied more often than children in other countries. An increasing number of children are not attending school, and each year **growing numbers of children are reaching age 15 without even basic levels of literacy and numeracy.** This is the first of three important findings we have identified in this report that merit closer attention.

The second major area for improvement is that **teenagers and young adults have rapidly increasing levels of psychological distress** and our teen suicide rate continues to be among the worst in the OECD.

Ensuring our housing markets support wellbeing across the course of our lives is the third major area for improvement we identify. Changes in our housing markets have made it more difficult for young people to progress into home ownership. Renting is becoming increasingly common well into people's 30s and 40s, and **our rental housing is among the least affordable in the OECD**, particularly for people with the lowest incomes. Housing in Aotearoa New Zealand is often of low quality, and this applies particularly to rental accommodation, which is more likely to be crowded or mouldy. Changes in our housing markets are an example of how the gap between the wellbeing of young and old is widening over time in many respects.

Many young people (and adults) experience one type of low wellbeing, such as poor mental health, or low skills, or unaffordable housing. But a single type of low wellbeing is often balanced by high wellbeing in other areas of life. Those of us least satisfied with our lives tend to face low wellbeing in multiple areas at once. **About 5% to 10% of the population are experiencing low wellbeing in at least four areas.** Disabled people, sole parents, Māori and Pacific Peoples are overrepresented in groups of people that experience low wellbeing in multiple areas.

Some experiences of low wellbeing are short-lived, but others are persistent or recurrent. Much income poverty and material hardship is recurrent, particularly for people without qualifications and people on benefits. On average, someone on benefit today can expect to spend 12 more years on benefit between now and when they turn 65.

Many of those with low wellbeing are parents. Children raised by parents with low wellbeing do less well at school and tertiary levels than children of more advantaged parents. Patterns of educational success help explain why **children of rich parents are more likely to become rich themselves and the children of poor parents are more likely to become poor.** Our levels of income mobility between generations appear to be higher than in countries like the USA, but lower than in countries like Denmark.

Wellbeing of Māori and Pacific peoples

The lower wellbeing of young people is particularly important for Māori and Pacific Peoples, two groups with lower average wellbeing and younger age profiles. In future Māori and Pacific Peoples will make up a larger share of the total population. The wellbeing of these groups is important in its own right and will increasingly affect aggregate measures of wellbeing across the country.

Those of us who are Māori experience high levels of cultural belonging, collective identity, and communal sharing and giving, and Māori wellbeing is improving in many ways. However, Māori experience lower wellbeing on average than other groups of people across many areas, including income, material hardship, health, and housing. Most of these gaps between Māori and non-Māori are closing slowly at best. **Māori have had especially rapid increase in rates of psychological distress, high levels of discrimination, and low trust in government institutions.**

Those of us who are Pacific peoples have strong social connections and a strong sense of belonging to New Zealand. However, Pacific peoples' wellbeing is lower than the national average across many other areas, with **poor housing and low incomes for Pacific peoples** being two standout issues.

The future of wellbeing in Aotearoa New Zealand

Taken together, these findings point to a growing intergenerational gap in wellbeing. Today's children and young people will face major challenges to achieving the same high levels of wellbeing that older adults enjoy today. The falling educational achievement and worsening psychological distress we observe among young people today pose risks to their wellbeing as adults. There are also external challenges to future wellbeing, especially climate change.

In many respects wellbeing has held up in recent years despite COVID-19. However, it is possible that we are yet to see the full impact of COVID-19 on society. Recent deterioration in educational attendance,mental health, and other measures could affect wellbeing in future.

One way to assess whether wellbeing can be sustained is to look at the evolution of the four aspects of our national wealth. Our physical capital and human capability are high and have been increasing over time, something that future New Zealanders will benefit from. Future New Zealanders will also benefit from the high social cohesion we have built, although there are threats to maintaining this such as the rise of misinformation. However, **while New Zealand has high natural capital, aspects of the natural environment are deteriorating**, and this poses risks to future wellbeing. As our economy has developed over time, we have accepted some deterioration of our natural environment in exchange for the benefits of increasing wealth of other forms. But biodiversity loss and other types of environmental deterioration cannot continue indefinitely without posing major risks to future wellbeing.

Perhaps the most significant risk to the sustainability of our wellbeing is climate change. Severe weather events are becoming more frequent as mean temperatures rise, and the sea level is rising. Scientists predict this will continue. Aotearoa New Zealand is part of global efforts to reduce greenhouse gas emissions, efforts which will require an economic transformation. **Sustaining wellbeing will depend upon our society's ability to adapt to a lower-carbon economy and a warmer global climate.** Through a combination of productivity growth, technological change and societal choices, the material foundation of our wellbeing needs to change if it is to be sustainable in the future.

Aotearoa New Zealand is also exposed to many high-impact, inevitable, but rare risks like earthquakes and tsunami that significantly harm wellbeing when they occur. Managing risks, particularly the potential for many major, unexpected ones, requires a focus on building adaptability and resilience across society. This means investing in the quality and flexibility of our institutions, which determine our response to risks, and managing our wealth to provide buffers to absorb shocks.

Next steps after Te Tai Waiora

Te Tai Waiora will provide a lasting evidence base for the Treasury and other organisations to understand the trends, distribution, drivers and sustainability of wellbeing in Aotearoa New Zealand. The insights contained in Te Tai Waiora aim to help inform the policy and investment advice that we offer to governments over time.

In preparing Te Tai Waiora, we identified important areas for further research. Aotearoa New Zealand needs better data, particularly about the natural environment. More work is needed to better understand the causes of the concerning trends identified in Te Tai Waiora. And further work will help us to understand what policy interventions could help alleviate low wellbeing.

Our hope at Te Tai Ohanga | The Treasury is that future iterations of this report will build upon the foundation laid in our first attempt, to develop ever-richer insight into wellbeing.

WHAKARĀPOPOTO MATUA

I roto i tēnei pūrongo, ka aromatawai Te Tai Ōhanga he pēhea te panoni o te toiora i Aotearoa i te hipanga o te wā, he pēhea te tuari o te toiora, he pēhea te kuneroa o te toiora o ngāi Māori, ā, mēnā he mea toitū te toiora ā muri atu.

Ko te tikanga o te toiora ka pēhea mēnā e pai ana te haere o tō tātou ao. Ka kōpani i ngā āhuatanga katoa o te tōnuitanga ōkiko pērā i te moni whiwhi me te GDP. Waihoki, ka kōpani hoki i ētahi atu mea matua pērā i tō tātou hauora, ō tātou whanaungatanga ki ētahi atu tāngata me te taiao, me te ngata e whiwhi ai tātou i te wheako ki te ao. Ki a mātou o Te Tai Ōhanga he "ōhanga kua mahia tikahia" te tātaritanga toiora, nā te mea ka waihangatia ai te tino whakaahua o te ahu whakamua ā-pāpori.

Ko ngā whakawhanaketanga o te toiora i te hipanga o te wā

Kua pai ake te ao i Aotearoa i ngā āhuatanga huhua i roto i ngā rua tekau tau kua hipa. I te hipanga o te wā kua whakawhanake tātou, i Aotearoa nei, i te tūāhanga o tō tātou whenua, kua waihanga i ngā whakanōhanga pai ake, ā, kua huri i te ōhanga. He maha ngā painga kua tukuna e tēnei ahu whakamua. Hei tauira, ināianei he pai ake tō tātou hauora me te roa ake o ngā tau e ora ana, he haumaru ake i runga i ngā huarahi me ngā wāhi mahi, ā, he nui rawa ake ō tātou moni whiwhi i ō ngā wā i mua.

Ina whakatairitea ai ki ētahi atu whenua OECD, he huhua ngā āhuatanga pai o Aotearoa hei wāhi noho. Kei a tātou te hau takiwā mā, ngā whanaungatanga kaha, he nui te ngata ki tō tātou ao, ā, he āhua teitei te taumata whakakotahitanga o te pāpori me te pono o tētahi ki tētahi. He teitei rawa ngā taumata pūkenga o te hunga kei te pakeketanga tika ki te mahi, ko tētahi take he tokomaha ngā tāngata me ngā tohu teitei i whānau mai i whenua kē kua tūhono mai ki tō tātou pāpori i te hipanga o te wā.

Ina whakatairitea ai ki ētahi atu whenua OECD, he wāhi pai a Aotearoa hei noho mō te nuinga o ngā kaumātua. Ina whakatairitea ana ki te hunga he ōrite te pakeke i whenua kē, he teitei ngā taumata tautoko ā-pāpori mō mātou kua hipa i te 65 tau, he pai ake ngā aurongo, ā, he iti iho te tūponotanga e noho ana rātou i roto i te rawakore. Ko ngā pāpātanga o te whiwhinga kāinga he teitei rawa mō ngā rōpū o te hunga tino pakeke, te nuinga i whai painga i te tino tipu o ngā utu kāinga i te hipanga o te wā.

Ko ngā takiwā o te toiora hahaka, whakaero rānei

Heoi anō, **kāore e pērā rawa te pai o Aotearoa e pā ana ki te toiora mō ngā tamariki me ngā rangatahi.** E heke ana ngā pāpātanga rawakore tamariki engari he tokomaha tonu ngā tamariki me ngā rangatahi kua wheako i te rawakore mō tētahi wāhanga nui o ō rātou ao, tae atu ki ngā tamariki hauā huhua me ngā tamariki i roto i ngā whānau matua tūtahi. E whakaatu ana te taunakitanga kāore e pērā rawa te tutukitanga pai o ēnei tamariki i te wā o ō rātou ao.

E ai hoki ki te taunakitanga he iti iho te pai o ō tātou kura ki te whakaheke i te taumahatanga i tō ngā kura kei whenua kē. He nui ake te tūponotanga o ā tātou tamariki i ō tātou kura ki te whakaweti, i tō ngā tamariki i whenua kē. E piki ana te tokomaha o ngā tamariki kāore i te toro atu ki te kura, ā, i ia tau **e piki ana te tokomaha o ngā tamariki e eke ana ki te tau 15 me te kore e eke ki ngā taumata waiwai o te reo matatini me te pāngarau.** Koinei te tuatahi o ngā kaupapa hira e toru kua tautuhia e mātou i roto i tēnei pūrongo e tika ana kia āta tirotirohia.

Ko te wāhi tuarua kia whakapai ake **he tere te piki o ngā taumata ngaukino ā-hinengaro o ngā rangatahi me ngā pakeke pūhouhou** waihoki kō tō tātou pāpātanga whakamomori rangatahi tētahi o ngā mea kino rawa o te OECD.

Ko te wāhi matua tuatoru kia whakapai ake ka tautohua e mātou ko te whakatūturu mā ngā mākete wharenoho e tautoko te toiora mō te katoa o ō tātou ao. Nā ngā panoni i roto i ō tātou mākete wharenoho i uaua ai mā te hunga taiohi te ahu whakamua ki te whiwhinga kāinga. Ka piki te whānuitanga o te rēti o ngā pakeke kua eke ki ngā tekau tau 30 me te 40, waihoki **ko te wharenoho rēti i konei he tino ngoikore te tareka ā-utu puta noa i te OECD**, otirā, mō te hunga me ngā moni whiwhi iti rawa. He iti te kounga o ngā wharenoho i Aotearoa, ā, e tino hāngai ana tēnei ki te wāhi noho rēti, he nui ake te tūponotanga ki te apiapi, te puruhekaheka rānei. Ka whakatauiratia e ngā panoni o ō tātou mākete wharenoho te āputa i waenganui i te toiora o te rangatahi me te kaumātua, ā, e āhua whakawhānui haere ana.

He tokomaha te hunga taiohi (me ngā pakeke) e pāngia ana e tētahi tūmomo toiora hahaka, pērā i te hauora hinengaro kino, ngā pūkenga hahaka, te wharenoho tē taea te utu rānei. Engari, he nui ngā wā ka whakatauritea tētahi momo toiora hahaka kotahi e te toiora teitei ki ētahi atu takiwā o te ao o te tangata. Ko te hunga he iti rawa te mākona i roto i ō tātou ao, e pāngia ana e te toiora hahaka i roto i ngā takiwā huhua i te wā kotahi. **Ko tōna 5 ōrau ki te 10 ōrau o te taupori e pāngia ana e te toiora hahaka i roto i ngā takiwā e whā, neke atu rānei.** He whakaahuahanga nui nō te hunga hauā, ngā mātua tūtahi, ngāi Māori me ngā tāngata nō te Moana-nui-a-Kiwa hei rōpū tāngata e pāngia ana ki te toiora hahaka i roto i ngā takiwā huhua.

He poto te wā o ētahi wheako toiora hahaka, engari kō ētahi he pūmau, he auau rānei. He nui te rawakore moni whiwhi me te taumahatanga rawa e auau ana, otirā mō te hunga kāore i whiwhi ki ngā tohu me te hunga e whiwhi ana ki ngā penihana. He pēnei te toharite, ina whiwhi ana te tangata ki te penihana i te rā nei, e matapaetia ana ka noho ia ki te penihana mō ngā tau 12 anō mai i tēnei wā me tāna huringa ki te tau 65.

He tokomaha te hunga me te toiora hahaka he mātua. Kāore e tutuki pai ana ki te kura me ngā taumata mātātoru ngā tamariki e whakatipuhia ana e ngā mātua me te toiora hahaka pērā i te tutuki pai a ngā tamariki me ngā mātua whai huanga. Mā ngā tauira o te angitu mātauranga e whakamārama ai he aha te take **he nui ake te tūponotanga e whairawa ai ngā tamariki o ngā mātua whairawa, ā, e rawakore ai ngā tamariki o ngā mātua rawakore.** He nui ake ngā taumata o te panukutanga moni whiwhi i waenga i ngā whakatipuranga i konei, i ō ngā motu pērā i Amerika, engari he iti iho i ō ngā motu pērā i Tenemāka.

Te toiora o ngāi Māori me ngā tāngata nō te Moana-nui-a-Kiwa

He mea tino nui te toiora hahaka o te hunga taiohi ki ngāi Māori me ngā tāngata nō te Moana-nui-a-Kiwa, ngā rōpū e rua me te toiora hahaka me ngā hangapori tau iti iho toharite. Ā muri atu, he nui ake te wāhi o ngāi Māori me ngā tāngata nō te Moana-nui-a-Kiwa i roto i te taupori whānui. He mea nui te toiora o ēnei rōpū, ā, nāwai rā ka whakaaweawe ēnei rōpū i ngā inenga hiatonga o te toiora puta noa i te motu.

Mēnā he Māori te tangata he teitei ngā taumata noho huānga ā-ahurea, te tuakiri kiritōpū, me te tuari me te koha ā-hapori, ā, he maha ngā ara e piki ana te pai o te toiora Māori. Heoi anō, he toiora hahaka ā-toharite e wheako ana ngāi Māori i tō ētahi atu rōpū tāngata, i roto i ngā takiwā huhua, tae atu ki te moni whiwhi, te taumahatanga rawa, te hauora, me te wharenoho. He pōturi te whakaitinga o te nuinga o ēnei āputa i waenganui i ngāi Māori me tauiwi. **Kua pā ki ngāi Māori he pikinga tere rawa ki ngā pāpātanga o te auhi ā-hinengaro, ngā taumata teitei o te whakahāwea, me te pono iti rawa ki ngā whakanōhanga kāwanatanga.**

He kaha ngā tūhononga pāpori me te noho huānga ki Aotearoa o ngā tāngata nō te Moana-nui-a-Kiwa. Heoi anō, he iti iho te toiora o ngā tāngata nō te Moana-nui-a-Kiwa i te toharite ā-motu ki ngā takiwā maha, ā, ko **ngā wharenoho kino me te moni whiwhi iti** he take nui rawa mā ngā tāngata nō te Moana-nui-a-Kiwa.

Te anamata o te toiora i Aotearoa

Hui katoa, e tohu ana ēnei kitenga i te āputa i waenga i tētahi whakatipuranga, i tētahi whakatipuranga e pā ana ki te toiora. Kei mua i te aroaro o ngā tamariki me ngā rangatahi onāianei ngā wero nui ki te whakatutuki i ngā taumata teitei o te toiora pērā i ō ngā pakeke kaumātaua o ēnei rā. He tūraru nō te hekenga o te whakatutukitanga ā-mātauranga me te kino haere o te ngaukino ā-hinengaro e kitea ana e mātou i roto i te hunga taiohi ki ō rātou toiora hei pakeke. Tērā hoki ētahi wero rāwaho ki te toiora anamata, otirā te panoni āhuarangi.

I roto i ngā āhuatanga huhua kua pūmau tonu te toiora ahakoa te KOWHEORI-19 i ngā tau tata kua hipa. Heoi anō, tērā pea kāore anō mātou kia kite i te tino pānga o te KOWHEORI-19 ki te pāpori. Tērā pea mā te whakaero i roto i te taenga atu ki te kura, te hauora hinengaro, me ētahi atu inenga e whakaaweawe te toiora ā muri atu.

Ko tētahi ara kia aromatawai mēnā ka toitū te toiora ko te tirohanga ki te kuneroa o ngā āhuatanga e whā o tō tātou whairawa ā-motu. He teitei tō tātou rawa ahumoni ōkiko me te āheinga tangata, ā, i te piki haere i te hipanga o te wā, tētahi mea e whai painga ai ngā whakatipuranga tāngata nō Aotearoa e heke mai nei. Waihoki ka whai painga ngā whakatipuranga tāngata nō Aotearoa e heke mai nei i te teitei o te whakakotahitanga o te pāpori kua hangaia e tātou, ahakoa tērā ētahi whakamōrea ki te whakapūmau i tēnei, pērā i te putanga mai o te kōrero horihori. Heoi anō, ahakoa he teitei te rawa ahumoni o Aotearoa **e whakaero ana ētahi āhuatanga o te taiao māori**, ā, ka noho hei tūraru ki te toiora anamata. Ina whakawhanake ana tō tātou ōhanga, kua whakaae tātou ki tētahi whakaerotanga o tō tātou taiao māori hei whakawhitinga mō ngā painga o te whakapiki whairawa āhua kē. Engari kāore e taea te haere tonutanga o te ngaro kanorau koiora ki te kore e puta hei tūraru nunui ki te toiora anamata.

Tērā pea ko te tūraru nui ki te toitūtanga o tō tātou toiora ko te panoni āhuarangi. Kua putuputu ngā takunetanga huarere ina piki ai ngā paemahana toharite me te piki tonu o te taumata o te moana. E matapae ana ngā kaimātai pūtaiao ka haere tonu tēnei. Kua whai wāhi a Aotearoa ki te whakapaunga kaha ā-ao ki te whakaiti i ngā putanga haurehu kati mahana, ā, e hiahiatia ana e ēnei mahi te huringa ōhanga. **Ka hāngai te toitūtanga toiora ki te āheinga o tō tātou pāpori ki te urutau ki te ōhanga waro iti iho me te āhuarangi mahana ake ā-ao.** Nā te whakatōpūtanga o te whanaketanga māpua, te panoni hangarau me ngā kōwhiringā ā-pāpori, me panoni te tūāpapa ōkiko o tō tātou toiora kia toitū tonu ā muri atu.

Waihoki ka pāngia a Aotearoa e ngā tūraru huhua, pānga nunui, onge hoki, ā, kāore e kore ka pā mai pērā i ngā rū whenua me ngā parawhenua e tino whakakino ana i te toiora ina puta mai ai. Ki te whakahaere tūraru, otirā te pitomata mō ngā mea nui, kāore i te matapaetia, me arotahi ki te waihanga i te urutaunga me te manawaroa puta noa i te pāpori. Ko tōna tikanga me whakangao ki te kounga me te tāwariwari o ō tātou whakanōhanga, e whakarite ai i tā tātou urupare ki ngā tūraru, me te whakahaere i tā tātou whairawa hei whakarato i ngā tauārai hei miti whētuki.

Ngā mahi hei muri i Te Tai Waiora

Ka whakarato Te Tai Waiora i te tūāpapa taunakitanga pūmau kia āhei Te Tai Ōhanga me ētahi atu rōpū whakahaere te mārama ki ngā ia, te tuari, ngā kōkiritanga me te toitūtanga o te toiora i Aotearoa. Ka whai ngā māramatanga i roto i Te Tai Waiora kia āwhina ki te tautoko i ngā tohutohu kaupapahere me te whakangao e tāpae ana mātou ki ngā kāwanatanga i te hipanga o te wā.

I a mātou e whakarite ana i Te Tai Waiora, i tautuhi mātou i ngā takiwā matua hei rangahautanga anō. E hiahia ana a Aotearoa ki te raraunga pai ake, otirā mō te taiao māori. Me mahi i ētahi atu mahi kia mārama pai ake ki ngā pūtake o ngā ia whakararu i tautuhia i roto i Te Tai Waiora. Waihoki, mā te mahi anō ka āwhinatia mātou kia mārama ko ēhea ngā wawao kaupapahere e hiki ai i te toiora hahaka.

Ko tō mātou wawata i Te Tai Ōhanga ka waihanga ngā putanga anō o tēnei pūrongo ā muri atu i runga i te tūāpapa i whakatakotohia i roto i tā mātou whakamātau tuatahi, kia whakawhanake i te māramatanga hōhonu ake ki te toiora.

Our Individual and Collective Wellbeing

LIVING STANDARDS FRAMEWORK DASHBOARD INDICATORS

80%
of adults who said it was easy or very easy to express their identity

31%
of people who say the public has some or large influence on the decisions their council makes

39.2%
of people who rated the "overall state of the natural environment in New Zealand" as very good or good

9.6%
of adults with high or very high levels of psychological distress

52%
of people who have participated in at least one art form in the last 12 months

81.5%
of enrolled electors who voted in the general election

69.4%
of adults who reported that, if they urgently needed a place to stay, it would be easy or very easy to ask someone they know

12.1
Deaths caused by intentional self-harm, age-standardised rate per 100,000 people

64.6%
of Māori adults who feel strongly connected with their ancestral marae

42.2%
of enrolled voters who voted in the contested mayoral elections

69.6%
of adults who had face-to-face contact with friends who do not live with them at least once a week

17.4%
% of children with unmet need for primary healthcare

1.22
Average number of languages spoken

66.5%
of adults who said it was very easy to get to their nearest park or green space

17.6%
of adults who felt lonely at least some of the time in the last four weeks

10.8%
of people living in a crowded house

88.2%
of adults with a score of 7/10 or higher for sense of belonging

78%
of people served with drinking water that met all treatment management standards

94.6%
of adults who report they have friends or relatives they can count on in times of trouble

30.1%
of households with housing costs greater than 30% of income

4%
of people who can converse about a lot of everyday things in te reo Māori

22
Prevalence of agricultural drought

88%
of adults reporting good, very good or excellent health

4.7%
of adults reporting major repairs needed

41.8%
of people aged 16-65 who agree they have a say in what the Government does

32
Restricted annual activity days due to illness resulting from exposure to human-made pollution

82.3 years
Life expectancy at birth

ICON KEY

- Cultural capability and belonging
- Engagement and voice
- Environmental amenity
- Family and friends
- Health
- Housing

SOURCE:
For more information and sources see lsfdashboard.treasury.govt.nz/wellbeing

11%
of children living in households experiencing material hardship

31.1%
of adults aged 25 and over with a Bachelor's degree or higher qualification

59.6%
of adults who feel safe when walking alone in their neighbourhood after dark

$29.66
Median hourly earnings for employees aged 15 years and over

$1,174
Average real weekly household expenditure

66.5%
of adults aged 25 and over with at least NCEA Level 2

0.8
Deaths caused by assault, age-standardised rates per 100,000 people

3.8%
of the labour force who are unemployed

$43,900
Median real equivalised household income

59.7%
of school students attending regularly

320
Number of road accident deaths

3.5
Average hours per day spent doing unpaid work

8.8%
of adults who report they do not have enough money to meet everyday needs

16.5
Average hours per day devoted to free time and personal care by people aged 12 and over

90
Number of work-related injury claims per 1,000 FTEs

50.7%
of adults who reported having done voluntary work in the previous four weeks

14.9%
of children aged under 15 living in households where food sometimes or often runs out

72%
of adults participating in play, active recreation and sport each week

81.1%
of adults with a score of 7/10 or higher for life satisfaction

11.9%
of young people aged 15–24 years who are not in employment, education or training

$991,432
Average household net worth

75.7%
of adults who are "very satisfied" or "satisfied" with their work-life balance

85.2%
of adults with a score of 7/10 or higher for feeling that life is worthwhile

503
Programme for International Student Assessment mean score

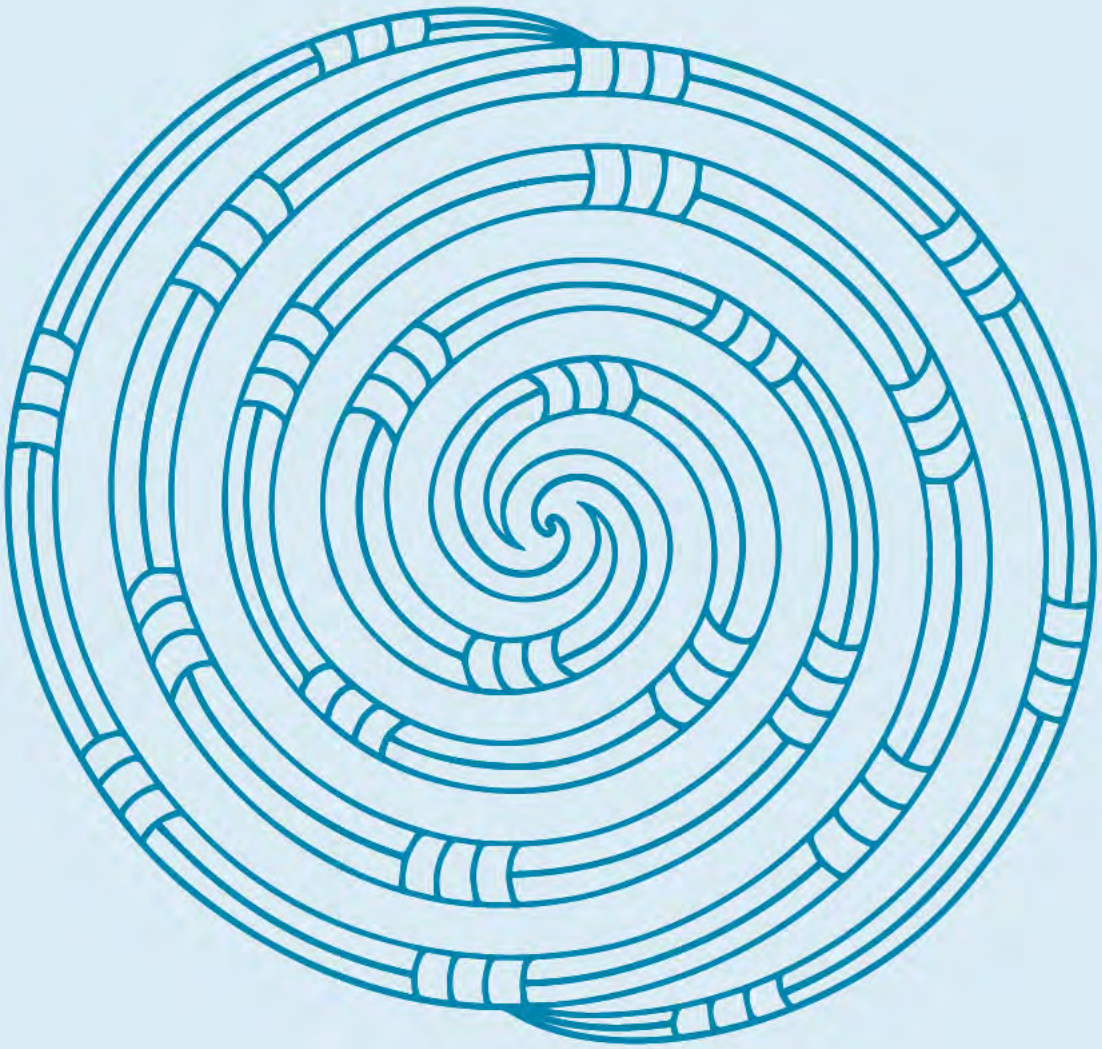
1.7%
of adults who were victims of family violence in the past year

68.1%
of adults aged 15 years and over who are employed

Income, consumption and wealth
Leisure and play
Subjective wellbeing
Knowledge and skills
Safety
Work, care and volunteering

1

Purpose and approach



What is the purpose of Te Tai Waiora?

Te Tai Waiora provides a 'big picture' overview of wellbeing in Aotearoa New Zealand, how it has changed over decades and how well we are positioned to sustain our wellbeing over time. In Te Tai Waiora we have assessed a wide range of aspects of life that New Zealanders value. This includes traditional measures of economic success, such as income and gross domestic product, as well as broader measures of progress such as changes in our health, social connections, life satisfaction, and environment.

There are more detailed reports and studies on specific aspects of wellbeing, produced by public service agencies and other experts.[1] Te Tai Waiora draws on these reports, as well as original Treasury research, to provide a macro perspective on wellbeing. In producing Te Tai Waiora, we aimed to step back and consider the interlinkages and contrasts between the many facets of life that we call 'wellbeing'.

Te Tai Ōhanga | the Treasury considers wellbeing analysis to be economics done well. Economics has always been about raising wellbeing, also known as welfare or utility. A strong economy is an important aspect of wellbeing – for example, higher incomes can help provide people the freedom to live the life they most value. Traditional measures such as GDP are important, but do not provide a complete picture of wellbeing. Over time, increasingly sophisticated ways to measure progress more broadly have become available. Te Tai Waiora is a summary assessment of progress more broadly conceived.

BOX A: LEGISLATIVE REQUIREMENT

In 2020, the Public Finance Act 1989 was amended to require the Treasury to produce a wellbeing report at least once every four years. Section 26NB of the legislation requires that the report must describe, using indicators:

- the state of wellbeing in Aotearoa New Zealand
- how the state of wellbeing has changed over time, and
- the sustainability of, and any risk to, the state of wellbeing in Aotearoa New Zealand.

The report must be accompanied by a statement of responsibility signed by the Secretary to the Treasury, which states that the indicators have been selected, and the report prepared, by the Treasury using its best professional judgements.

1 This report provides a detailed bibliography at the end to assist readers wanting more information.

How do we think about wellbeing?

Te Tai Ōhanga | the Treasury has a vision of raising living standards for all people in Aotearoa New Zealand. We have been working for over ten years to consider the broader impacts of our policy advice in a systematic and evidenced way, through the development of the Living Standards Framework.

The Living Standards Framework captures many of the things that matter for wellbeing, now and into the future. It is a flexible framework that prompts our thinking about policy impacts across the different dimensions of wellbeing, as well as the long-term and distributional implications of policy.

In recent years we have also been using He Ara Waiora, a framework that helps the Treasury to understand waiora or a Māori perspective on wellbeing, alongside the Living Standards Framework. In doing so we recognise there is no single conceptualisation of wellbeing that is universally agreed, and additional perspectives support more robust analysis. While many dimensions of He Ara Waiora are relevant to all people in Aotearoa New Zealand, we mainly use it to explore the wellbeing of Māori in this first report as we develop our capability to use He Ara Waiora in an authentic way.

An overview of the two frameworks is provided in Boxes C and D and more detail can be found on the Treasury website.

The Living Standards Framework (LSF) is supported by a set of indicators that the Treasury tracks in a Dashboard, which was informed by extensive engagement prior to its release in 2018 and additional targeted engagement around a refresh over 2021 and 2022.[2] The indicators from the LSF Dashboard are used extensively throughout this report and are supplemented with additional indicators and data when this helps contextualise the trends in the LSF Dashboard indicators or otherwise enrich the analysis.

We do not currently have a similar set of agreed indicators to underpin He Ara Waiora so we have drawn on interim indicators, many of which align with the LSF Dashboard, in our application of He Ara Waiora. We also draw on a series of interviews with Māori leaders to complement the quantitative measures with a rich source of qualitative information on Māori wellbeing.

In preparing this report, we have engaged with key public sector agencies and wellbeing experts to ensure that Te Tai Waiora accurately reflects complex issues, including drawing on published and unpublished work of other agencies.

As part of our engagement approach, we have been running a wellbeing seminar series – bringing in external ideas as a source of challenge and intellectual stimulation. Readers can see the videos of these seminars on the Treasury website.

2 The LSF Dashboard can be found here: Living Standards Framework - Dashboard (treasury.govt.nz)

How to read this document

This report summarises the key messages emerging from our analysis. More thorough discussion of most issues raised in this report can be found in background papers that are being published alongside this report (see Table 1.1), as well as in the many detailed reports published by other public sector agencies.

This report utilises the data and analysis available on a range of wellbeing indicators. In some cases the most recent data is from surveys conducted in 2018 or earlier. This has been sufficient for the purposes of this report due to its focus on long term trends. The Treasury has used its best professional judgement in all cases to determine the best data to include in this report. In Chapter 6 we highlight key data limitations and opportunities to improve the monitoring of wellbeing in future.

Integrated Data Infrastructure Disclaimer

This report uses data created by other public service agencies using the Integrated Data Infrastructure (IDI). These results are not official statistics. They have been created for research purposes from the IDI which is carefully managed by Stats NZ.[3]

Table 1.1: Te Tai Waiora background papers

Trends in Wellbeing in Aotearoa New Zealand: 2000-2020
Uses LSF dashboard indicators across the 12 wellbeing domains, explores how wellbeing in each domain is tracking on average over time; how we compare to other OECD countries; initial distributional insights. Released April 2022.

New Zealand's wellbeing: Is it sustainable and what are the risks?
We look at how New Zealand's resources have tracked over time and what this says about the sustainability of our wealth. We focus on some of the major risks to wellbeing, such as climate change.

Wellbeing and natural capital: Understanding the sustainability and risks
This paper investigates the existing evidence on the sustainability of the contribution of New Zealand's natural environment to the wellbeing of its people.

Estimating the value of New Zealand's Human Capability 1986-2018
Updating estimates of human capital using the 2018 Census. We extend previous analysis by estimating human capital for Māori and non-Māori.

Wellbeing in New Zealand: A Population Segmentation Analysis
Identifies clusters of the population with shared wellbeing experiences; identifies the LSF domains most strongly correlated with high and low subjective wellbeing.

Pacific Peoples' Wellbeing
This paper explores Pacific worldviews and community structures, and why they matter to Pacific peoples' wellbeing. It provides information about how Pacific people in New Zealand are faring across a range of wellbeing domains.

Trends in Māori Wellbeing
An exploration of current and emerging trends in Māori wellbeing using principles set out in He Ara Waiora. Quantitative evidence draws on indicators from the LSF Dashboard and Indicators Aotearoa New Zealand. The analysis is supported by qualitative evidence in the form of interview quotes from Māori participants and associated commentary.

The distribution of advantage in Aotearoa New Zealand
Evidence brief and overview on distribution, inequality and mobility, including the characteristics and clustering of multiple disadvantage.

Equality, equity and distributive justice
A survey of the literature, addressing what we mean by concepts such as 'equality' and 'equity', and reasons why economic inequality might be problematic.

Social cohesion in New Zealand
Discusses the evidence base relating to social cohesion in New Zealand, introduces the relevant concepts and reviews cohesion indicators for New Zealand including those used in the Living Standards Framework Dashboard.

Our wellbeing throughout the COVID-19 pandemic
A review of evidence about changes in New Zealanders' wellbeing from the arrival of COVID-19 in early 2020 through to the first quarter of 2022. This paper uses the LSF as a framework to provide a summary-level view across a wide set of wellbeing indicators.

Wellbeing during the first year of COVID-19: An analysis of the wellbeing supplement to the NZ Household Labour Force Survey (SWA)
This report focuses on how wellbeing changed in the immediate, short-term and medium-term over the first year of COVID-19. It tracks outcomes for all New Zealanders, as well as key groups that include parents, especially sole parents; disabled people; younger (18-39) and older (65+) people; Māori; Pacific people; and people living in Auckland.

3 For more information about the IDI please visit: Integrated data | Stats NZ

BOX B: PRODUCTIVITY AND WELLBEING

Productivity growth is an important driver of improving living standards and wellbeing for us in Aotearoa New Zealand. In the widest sense, productivity is about making the best use of all four aspects of our wealth to generate as much wellbeing across the 12 domains as possible. But even productivity in the narrower sense,[4] in which the term is often used, is important. By increasing productivity, we can produce more goods and services with the same or less input, thereby increasing the choices we have about how to use our resources to enhance our current and future wellbeing. Figure B.1 summarises how these relationships can work.

Productivity growth can support wellbeing by increasing our incomes and consumption and/or allowing us to reduce our hours of work to enjoy more free time. While the relationship is complex, higher incomes and consumption make a difference to how satisfied people are with their life. Higher incomes also provide more opportunity to fund public goods and services that benefit us all, such as schools, hospitals and infrastructure. Higher productivity can also protect future wellbeing by providing more income to invest in our national wealth and also by enabling us to use existing wealth less intensively.

There may also be a link from higher wellbeing to greater productivity, although this is less well studied.

In general terms poor wellbeing outcomes for individuals or communities can mean lost income, additional costs or lost opportunities where investment could have been put to better use. The New Zealand Productivity Commission has recently summarised the evidence on how improvements in some other domains of wellbeing can provide economic benefits. Key examples include:

- Educational achievement is important for wellbeing, for example in gaining skills confidence and social connections. Poor achievement can therefore affect both wellbeing and economic outcomes throughout life. School leavers in 2009 who earn a degree were shown to earn 40% more after 10 years than students who achieved NCEA level 2, and those leaving with NCEA level 2 earn twice as much as someone who left with no qualification.[5]
- Poor-quality housing has both wellbeing and economic implications. Overcrowded, cold, damp or mouldy homes were attributed to 6,000 hospital admissions annually on average between 2010 and 2017, with an estimated cost of $36 million per year. This does not account for time away from work or school.[6]
- Child poverty has been estimated to cost Aotearoa New Zealand between $6.3 billion (3.5% of GDP) and $16.3 billion (9.1% of GDP), and these costs can be felt across the economy. Addressing child poverty leads to better employment outcomes as adults and brings benefits to the wider community and economy.[7]

Figure B.1: How productivity growth relates to current and future wellbeing

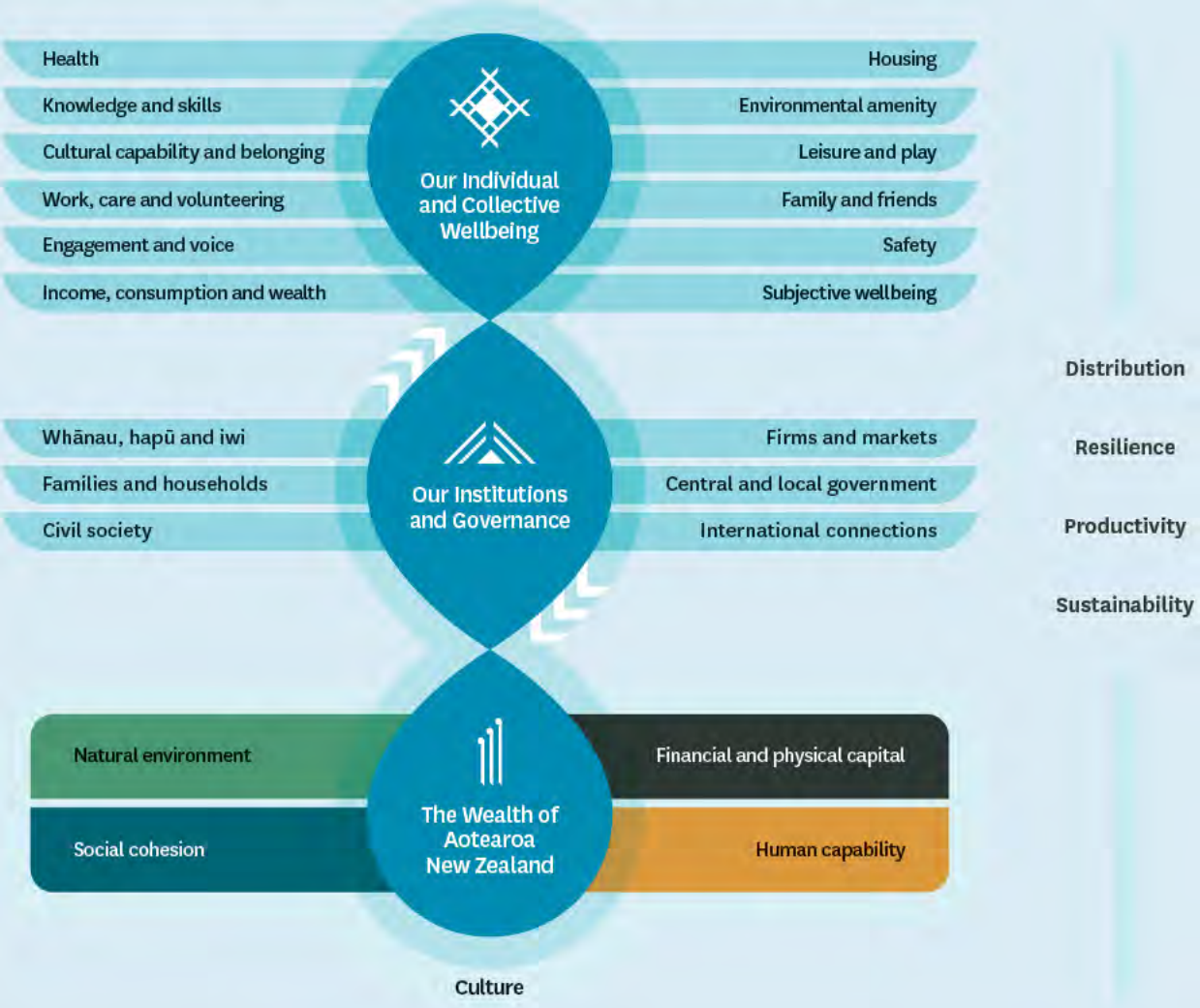
Source: New Zealand Productivity Commission, 2021b

4 As typically measured, productivity refers to the quantity and quality of goods and services produced for a given amount of labour and capital, given the productivity of each and how effectively they are combined.
5 Scott, 2020.
6 Riggs et al., 2021.
7 Timmins, 2022.

OUR WELLBEING FRAMEWORKS

BOX C: THE LIVING STANDARDS FRAMEWORK

The Living Standards Framework was developed by the Treasury to capture the different aspects of wellbeing and how they interact with each other. The main purpose is to provide a consistent approach to conceptualising wellbeing to support the Treasury to consider the broader impacts of our policy advice in a systematic and evidenced way.



The framework has three levels:

- **Our Individual and Collective Wellbeing:** This level captures the resources and aspects of our lives that have been identified by research or public engagement as important for our wellbeing as individuals, families, whānau and communities.
- **Our Institutions and Governance:** This level captures the role our institutions and organisations play in facilitating the wellbeing of individuals and collectives, as well as safeguarding and building our national wealth.
- **The Wealth of Aotearoa New Zealand:** This captures how wealthy we are overall, including aspects of wealth not fully captured in the system of national accounts such as human capability and the natural environment.

The Living Standards Framework also includes four analytical prompts that we use to analyse wellbeing across the three levels:

- **Distribution:** How is our wealth and wellbeing distributed across time, place and groups of people?
- **Resilience:** Do individuals, collectives, institutions, organisations and the environment have an ability to adapt to or absorb stresses and shocks?
- **Productivity:** How effectively is our wealth used to generate wellbeing and things of economic value?
- **Sustainability:** How well are we safeguarding our national wealth for the benefit of future generations?

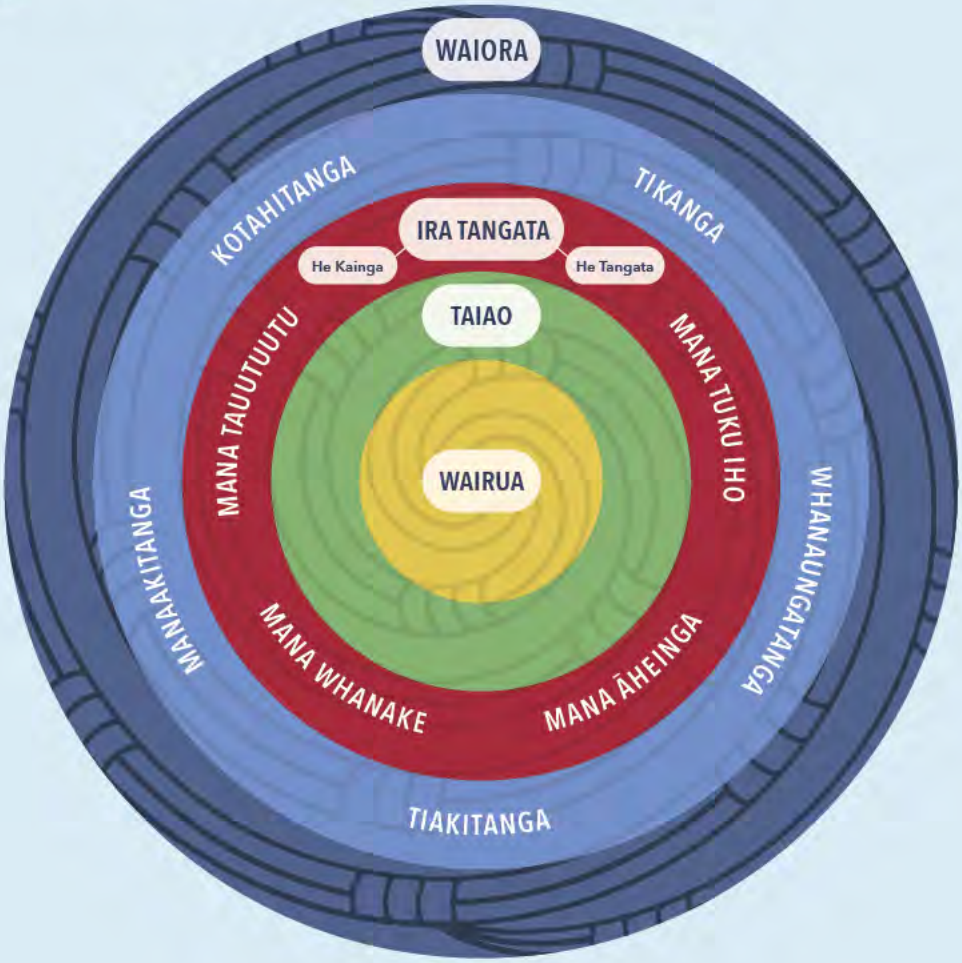
These concepts are considered throughout this report.

BOX D: HE ARA WAIORA

He Ara Waiora is a framework that helps the Treasury to understand waiora, a term that can be loosely translated as 'wellbeing' but that has no direct equivalent in English.

The term 'waiora' speaks to a broad conceptualisation of human wellbeing, grounded in wai (water) as the source of ora (life). He Ara Waiora presents a holistic, intergenerational approach to wellbeing. While its principles are derived from mātauranga Māori, many of its elements are relevant to lifting the intergenerational wellbeing of all people in Aotearoa New Zealand.

The takarangi (spiral pattern) design overlaid on He Ara Waiora, and forming the watermark on every page of this report, represents the dynamic way each component interacts with the others. In He Ara Waiora, all the concepts emanate from wairua, and cannot be extracted or considered in isolation. These are explained below, noting that none translate directly into English terms.



Flowing outwards from the centre, these are the three fundamental concepts:

- **Wairua** (spirit, intuition, emotion, expression) is at the centre to reflect that it is the foundation or source of wellbeing. Values, beliefs and practices related to wairua are essential to Māori concepts of waiora.
- **Te Taiao** (the natural and living state of the world) is paramount and inextricably linked with human wellbeing. Humans have responsibilities and obligations to sustain and maintain the balance of relationships with Te Taiao to ensure abundance for current and future generations.
- **Te Ira Tangata** encapsulates human activities and relationships. This includes four aspects of mana (power, authority, influence) in which human action towards wellbeing takes place.

Surrounding these concepts are five key values:

- **Kotahitanga** – working in an aligned, coordinated way
- **Tikanga** – making decisions in accordance with the right values and processes, including in partnership with the Treaty partner
- **Whanaungatanga** – fostering strong relationships through kinship and/or shared experience that provide a shared sense of wellbeing
- **Manaakitanga** – enhancing the mana of others through a process of showing proper care and respect
- **Tiakitanga** – guardianship, stewardship of, for example, the environment, particular taonga or other important processes and systems.

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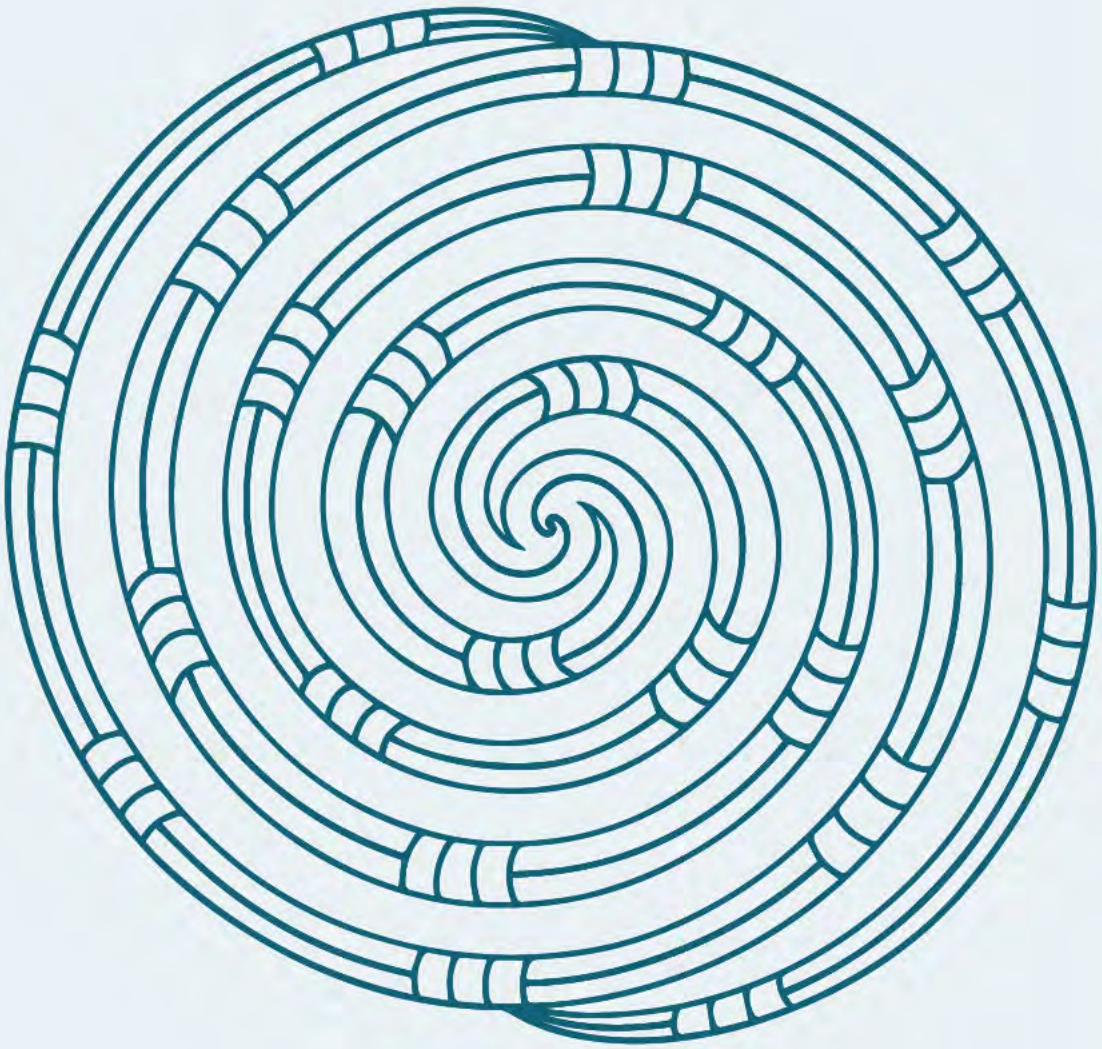
Trends in wellbeing



CHAPTER 2: TRENDS IN WELLBEING

This chapter looks at trends in each of the domains of wellbeing in the Living Standards Framework. It looks at how our wellbeing compares to that of people in other countries, and how wellbeing is changing over time. More detail is available in our background papers on trends in wellbeing and wellbeing throughout the COVID-19 pandemic.[8]

Key messages

- **Wellbeing has improved across many domains over time.** We are healthier, have higher incomes and net worth, are safer from violent crime and have a declining road toll.
- **Aotearoa New Zealand is a good place to live for most people.** We have many strengths relative to other developed countries, including high air quality, high rates of employment and volunteering, and high levels of social connection and life satisfaction.
- **However, wellbeing is stagnating or getting worse over time across some important domains of wellbeing.** We have identified **three key areas** of deteriorating or poor wellbeing: **mental health, educational achievement,** and **housing affordability and quality.**
- **One of the most striking insights is that our younger people fare less well on many metrics than older people.** Older people, for example, have higher life satisfaction and a higher sense of belonging, are less lonely, and are less likely to live in a mouldy home. We have high rates of teen suicide and bullying relative to other OECD countries and, while declining, high rates of child poverty.
- **This age divide is very evident in the three key areas of concern.** Higher levels of psychological distress and lower educational achievement for younger generations raises risks for wellbeing across their lives, and the young are more likely to be renting poor quality homes or to be priced out of the housing market.
- **Wellbeing has held up well in recent years despite COVID-19.** Gaps in wellbeing across demographic groups have generally not widened significantly over the pandemic period. However, it is possible that we are yet to see the longer-term impacts of COVID-19, particularly through disrupted schooling and health services.

8 These papers and other background Treasury papers to Te Tai Waiora can be found on the Treasury website under Research and Commentary.

Overview

Table 2.1 provides a snapshot of our strengths and weaknesses relative to other OECD[9] countries and how these have been trending over time. Table 2.2 provides a summary of trends for each domain over the last 20 years, and how they have evolved over recent years.

These tables show that Aotearoa New Zealand has many strengths. We have very high air quality, high rates of employment and volunteering, and high levels of social connection and life satisfaction. Most domains of wellbeing have also held up relatively well in recent years despite the COVID-19 pandemic (see Table 2.2 and Box E).

While we have strengths as a society, we also face many challenges and opportunities for improvement, and while we are improving in some areas, wellbeing is stagnating or getting worse over time across many important domains of wellbeing. There have also been persistent differences in wellbeing across demographic groups in many of the wellbeing domains, although these disparities have mostly not widened significantly over the pandemic period.

Disparities in wellbeing by age stand out strongly across many domains. While older people do less well in many countries, Aotearoa New Zealand is comparatively quite a good place to be old. Some older people are struggling but most are doing well, particularly those who are relatively healthy, partnered and own their own home.

Our younger people fare less well on many wellbeing metrics. While some age-related differences reflect lifecycle patterns, increases in the age divide in some domains suggest that the current generation of young people may be facing greater challenges than the young people of previous generations.

These challenges may have lasting impacts as this younger generation moves into the workforce and considers starting a family. Younger people are particularly affected in three key areas of wellbeing:

- **Mental health:** There have been substantial increases in reported psychological distress over the last 10 years, particularly among younger people and women, which may have been further exacerbated by the pandemic. Potentially linked to these trends, our teen suicide rates are among the worst in the OECD and are climbing for young men.
- **Educational achievement:** We are behind the highest-performing OECD countries and there are significant differences in how well children do at school depending on the prosperity of their parents. We are one in a group of OECD countries in which the proficiency of our children in reading, science and mathematics has declined over the last 10 years. The disruption the pandemic caused to schooling risks our children and young people falling even further behind.
- **Housing quality and affordability:** Increases in house prices in recent years have significantly outpaced increases in incomes, and it now takes almost twice as long to save for a house deposit as it did 10 years ago. The challenges of getting on the housing ladder mean that young people are more likely to rent homes than in the past. Renters pay an even higher proportion of their income on housing than those who own their own home and rentals are more likely to be crowded, damp and less stable. The rapid rise in house prices for several years prior to 2022 has also driven an increase in the wealth gap between those who own their own home and those who do not.

9 The Organisation for Economic Co-operation Development (OECD) is an intergovernmental organisation focused on driving good policy responses to common challenges. It has 38 member countries, mostly high income developed economies. The OECD has put significant work into standardising measures across its members which makes it a robust source of comparative data for this report.

Table 2.1: Notable features of our wellbeing since the turn of the century

	Strength relative to OECD	Mediocrity or weakness relative to OECD
 IMPROVING OVER TIME	Areas of strength where we are getting even better over time: ↑ Continued strength in employment (with low unemployment) since the late 1990s. ↑ Good and improving air quality.	Areas of weakness that are improving over time: ↑ Middling or lower safety than other countries in terms of crime, perceived safety, bullying and road deaths, but we are seeing improvements in some of these areas. ↑ Lower average household incomes than other OECD countries, although improving. ↑ Long hours of work for many, particularly men, have been declining somewhat but are coupled with lower satisfaction with work-life balance among those working long hours.
 STEADY OVER TIME	Areas of strength that are generally stable over time: → Continued high levels of adult skills and qualifications. → Engagement and voice have remained robust, although less so for young people. → High social support is also steady, although slightly less for Asian populations.	Areas of weakness that are generally stable over time: → Low housing affordability, particularly for low-income renters, since an upward spike in the 1990s. → Stable but middling rates of young people not in education, employment or training. → Overall suicide rates near the OECD median, teen suicides among the worst in the OECD.
 WORSENING OVER TIME	Areas of strength that are eroding over time: ↓ We have comparatively higher life satisfaction, but it is declining slightly. ↓ High but declining self-reported health. ↓ Low but increasing loneliness, particularly among the young.	Areas of weakness that are getting even worse over time: ↓ Worsening rates of psychological distress, particularly among young people, women and Māori. ↓ Middling but declining achievement among school students as measured by international surveys.

Table 2.2: A snapshot across the Living Standards Framework domains

	Longer-term trends	Recent developments
HEALTH	New Zealand is in the middle of the OECD pack in physical health measures, such as life expectancy. Psychological distress is increasing across the OECD, including in Aotearoa New Zealand.	The pandemic has disrupted access to health services and may have exacerbated psychological distress, particularly for Māori and Pacific peoples.
KNOWLEDGE AND SKILLS	High adult skills compared to other OECD countries, but we see long-term declines in educational achievement.	Educational achievement has been resilient so far but there is uncertainty around longer-term impacts of COVID-19 disruptions to education.
CULTURAL CAPABILITY AND BELONGING	Many people feel a sense of belonging to Aotearoa New Zealand and feel able to express their identity.	Experiences of discrimination over the pandemic for some groups may feed through into lower feelings of belonging.
WORK, CARE AND VOLUNTEERING	High employment, job satisfaction and volunteering relative to our OECD counterparts.	Employment is at record highs for all population groups, although pre-pandemic disparities remain.
ENGAGEMENT AND VOICE	Good engagement overall relative to other OECD countries, but voter turnout is less healthy in local democracy and among youth.	There appears to have been a continued decline in voter turnout in the 2022 local elections although voter rates are still to be officially confirmed.
INCOME, CONSUMPTION AND WEALTH	Material standards of living continue to grow but are still below the OECD average.	Household income and consumption held up through the pandemic.
HOUSING	New Zealand has among the least-affordable housing in the OECD on many measures, with increasing severe housing deprivation.	There were some spikes in emergency housing grants over the pandemic.
ENVIRONMENTAL AMENITY	Good overall air quality compared to other OECD countries. However, there are concerns about the quality of our rivers and drinking water.	In most countries, carbon emissions bounced back after COVID-19 lockdowns, suggesting no long-term mitigation of climate change from the pandemic.
LEISURE AND PLAY	Similar levels of free time to other OECD countries, but a substantial minority work long hours.	No substantial impact of COVID-19.
FAMILY AND FRIENDS	We have strong relationships with friends and family compared to other OECD countries. However, there have been significant increases in loneliness, particularly among the young.	Loneliness increased further over the pandemic period and continues to be far more prevalent among younger people.
SAFETY	We are less safe than other OECD countries but getting safer over time.	Road deaths and workplace injuries fell in 2020 but returned to previous levels in 2021.
SUBJECTIVE WELLBEING	New Zealand's life satisfaction has been high, relative to the OECD, for at least the last 10 years.	Life satisfaction metrics have been generally resilient in recent years but declined slightly as the pandemic stretched out.

BOX E: WELLBEING DURING THE COVID-19 PANDEMIC[10]

COVID-19 has had a significant effect on the way people live, study, work, and connect with one another. The pandemic did not play out in a vacuum and wellbeing has been buffeted by a range of other events across this period, including the fallout from the Russian invasion of Ukraine, as well as the continuation of longer-term trends. Therefore, not all recent trends can be ascribed to COVID-19.

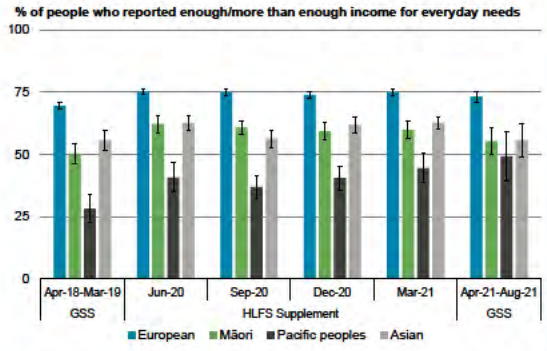
In many ways, wellbeing held up over the pandemic. However, there has been significant diversity of experience, even within demographic groups, and lags in data releases mean we do not yet have an up-to-date picture of the full impact. There is also uncertainty around the persistence of some impacts and risks to our wellbeing in the longer-term.

On the positive side, keeping COVID-19 mostly out of the country until many of us were immunised meant we had far fewer deaths than most other countries and minimised the pandemic-related disruption on businesses, schools and day-to-day activities. The economy regained pre-COVID-19 activity levels rapidly, unemployment reached historical lows in late 2021, and household incomes were maintained. The proportion of people who have enough or more than enough income to meet every-day needs remained stable and increased for Pacific peoples, over 2020 and 2021 (see Figure E.1). However, inflationary pressures experienced since mid-2021 may have affected household purchasing power and reinforced pre-pandemic income disparities.

Measures of average subjective wellbeing also held up, although these declined slightly as the pandemic stretched out. Nonetheless, these averages may mask some complexities as the pandemic has not affected everyone in the same way. Lockdown periods seem to have impacted the life satisfaction of some demographic groups, and some regions, more than others, for example sole mothers, Pacific peoples, and people living in Auckland. Throughout COVID-19, loneliness was also far more prevalent among younger people. As highlighted in the health section of this chapter, there has also been a spike in psychological distress for younger people and uncertainty around how persistent this may be. Education outcomes have similarly been impacted with regular attendance trending downwards.

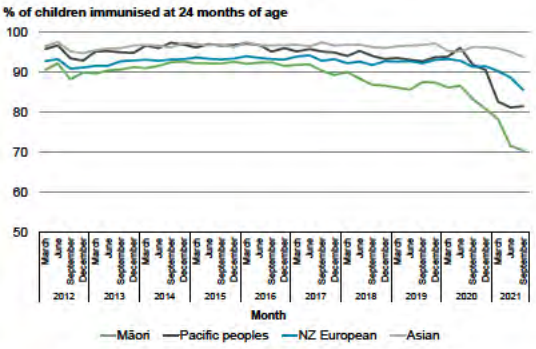
There were also negative impacts on many people from significant disruptions to health services. As well as limiting access to primary health care and screening, COVID-19 caused delays to planned care in hospital and specialist services. We have also seen an acceleration of the downward trend in immunisation of babies since the 2020 lockdowns, with widening ethnic disparities (see Figure E.2). These disruptions risk longer-term impacts on peoples' mental and physical health, with some emerging evidence of more severe acute events presenting at hospital emergency departments, which may be partially explained by barriers to primary care through the pandemic.[11]

Figure E.1: The proportion of people with enough or more than enough money was generally stable during the pandemic



Source: Stats NZ, General Social Survey and Household Labour Force Survey supplement data

Figure E.2: A declining trend in immunisations accelerated during the pandemic



Source: Health Quality & Safety Commission (provided directly)

10 This box draws on the work of Webber, et al., 2022. Available at http://swa.govt.nz
11 Health Quality and Safety Commission, 2022.

While not directly linked to the pandemic, continued house price increases over 2020 and 2021 will have widened the wealth inequalities between renters and homeowners. Longer-term trends in housing deprivation appear to have continued over the pandemic period, with some spikes in emergency housing grants during the lockdown periods. There were also temporary impacts of lockdowns on safety, with a significant reduction in reported crime during lockdowns, and fewer road deaths and workplace injuries in 2020.

While there is considerable uncertainty about how the pandemic continues to play-out, there are risks of longer-term impacts on our wellbeing through the erosion of some aspects of our national wealth.

Trust, as an important measure of social cohesion, played an important role in our COVID-19 response, and Aotearoa New Zealand reported higher levels of trust than the OECD average during the pandemic period. However, as in other OECD countries, those gains eroded as the pandemic continued. Consistent with longer-term trends, women, younger people, Māori, Pacific peoples and Asian people were most likely to report experiences of discrimination during the pandemic and there was a significant increase in the proportion of women and people aged 65 to 74 who reported this.

The pandemic has also put pressure on financial and physical capital. While a strong balance sheet prior to the pandemic enabled the government to support firms and households, it did lead to a significant increase in net core Crown debt from 19% of GDP in 2018/19 to 35.9% in 2021/22. On the other hand, business balance sheets remained resilient, reflecting in part the rapid overall economic recovery.

Although we do not see significant evidence yet, there are risks that disruptions to education over the pandemic will further challenge educational achievement in the coming years. Risks may be particularly high for those children who started school over the COVID-19 period or were experiencing a critical transition, such as from primary to secondary school.

HEALTH

Our physical health has steadily improved over time and people in Aotearoa New Zealand have very high self-reported health.[12]

Increases in life expectancy seem to have flattened out over the last 10 years or so, but we still live slightly longer on average than people in the median OECD country.[13] There are wide differences in life expectancy by region, ethnicity and gender.

However, our healthy life expectancy has now fallen slightly below the OECD median.[14] This is because the number of years we live in poor health has been slowly increasing since 2010, after a long period of decline. People in Aotearoa New Zealand spend more years of their life in poor health on average than people in most highly developed countries, with the exception of the USA which is an outlier on this measure, and Australia and the UK, which have similar levels to Aotearoa New Zealand (see Figure 2.1).[15]

The pattern of health loss has shifted significantly over time. Although heart disease still causes substantial death and disability, other conditions such as musculoskeletal disorders have placed a steadily larger health burden on the population.[16]

While smoking rates continue to decline, they still contribute to more death and disability than any other controllable risk factor.[17] Smoking rates have declined among all ethnicities but remain highest among Māori and Pacific peoples.[18] Second to smoking in the list of risk factors is obesity, which is increasing, and is contributing to the growing health impacts of diabetes, with a particular impact on older Pacific and Indian people.[19] There were increases in some 'unhealthy' behaviours over the COVID-19 pandemic, which may exacerbate these trends. While many people gave up smoking in the last two years, those who continued increased their consumption. There was an increase in exercise over the last two years as well, but obesity still increased. The pandemic also disrupted many health services, which may lead to more acute health events (see Box E).[20]

Mental health is another example where longer-term trends may have been exacerbated by the pandemic. There has been a sustained increase in reported psychological distress over the last decade, particularly among women and younger people (see Figure 2.2).

12 Living Standards Framework – Dashboard (treasury.govt.nz)
13 Living Standards Framework – Dashboard (treasury.govt.nz)
14 Living Standards Framework – Dashboard (treasury.govt.nz)
15 Note that the latest available data for international comparisons of life expectancy and healthy life expectancy only goes up to 2018.
16 Global Burden of Disease Study, data visualizer: https://vizhub.healthdata.org/gbd-results/
17 Global Burden of Disease Study, 2020.
18 New Zealand Health Survey Annual Data Explorer: https://minhealthnz.shinyapps.io/nz-health-survey-2020-21-annual-data-explorer/
19 Ministry of Health, 2020.
20 For a detailed analysis of health disruptions during COVID-19, see Health Quality & Safety Commission, 2022 or the Treasury's background paper to this report, *Our Wellbeing throughout the COVID-19 pandemic, The Treasury, 2022f.*

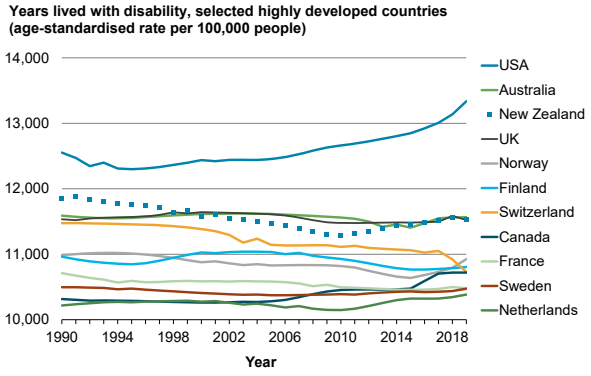
A 2021 survey of young people in years 9 to 13 of their schooling reinforced these concerns. Around 28% were experiencing levels of psychological distress that put them at risk of serious mental illness. In the last year, just under half had felt so overwhelmed they could not cope and felt that life was not worth living, one-quarter had seriously thought about suicide and one in 10 had attempted suicide. Results across these survey questions were worse for female, disabled and rainbow young people and, for most questions, rangatahi Māori.[21]

Increasing levels of self-reported psychological distress among youth is not unique to Aotearoa New Zealand, with similar trends in developed economies around the world. Considerable work has been done to raise public awareness of mental health and wellbeing over the last 10 years, which may mean we are uncovering a longer-standing problem. However, international researchers also point to a range of other factors that may be driving a rise in mental distress for young people. These include concerns about the future, such as climate change, access to housing and stable employment, as well as pressure from increasing expectations to be successful. There could also be impacts from the rise of electronic communication and digital media, and a decline in the number of hours of sleep that young people are getting.[22]

We have also seen a spike upwards in the percentage of young adults experiencing high or very high levels of psychological distress during the onset of the pandemic. Given the longer-term trends, this cannot necessarily be attributed solely to the pandemic, but there may have been impacts from the extended social isolation, economic disruption, and physical health impacts. There is some preliminary international evidence of a link between COVID-19 infection and long COVID with poor mental wellbeing outcomes.[23] Australia saw a similar upward spike in self-reported mental distress for young people, which has since declined, but not back to pre-pandemic levels.[24]

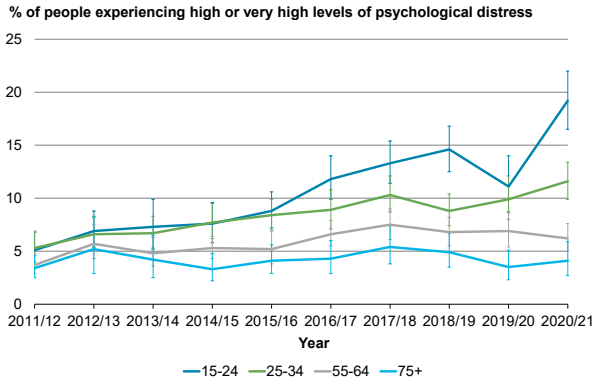
New Zealand also has high rates of youth suicide relative to other OECD countries.[25] The male suicide rate is about double the female rate,[26] and the rate for rangatahi Māori more than double that for non-Māori young people.

Figure 2.1: People in Aotearoa New Zealand spend more years of their life in disability[27] than many other developed countries



Source: Institute for Health Metrics and Evaluation: https://www.healthdata.org/

Figure 2.2: Psychological distress is increasing across all age groups but especially for the young (LSF Dashboard indicator)



Source: Ministry of Health, New Zealand Health Survey

21 Ministry of Social Development, 2022.
22 For analysis of similar increases in distress among young people in the United States and potential causes, see, for example, Twenge, et al., 2019.
23 See, for example, Xie et al., 2022.
24 Australian Institute of Health Welfare, 2021.
25 OECD, 2017b.
26 While more females attempt suicide, males are more likely to be successful, leading to a higher suicide rate.
27 Years lived with disability is a measure reflecting the impact an illness has on quality of life before it resolves or leads to death. The data in this chart has been adjusted to take account of different age structures in different countries.

KNOWLEDGE AND SKILLS

The skill and qualification level of our adult population is strong compared to people in other countries, reflecting historically high levels of school achievement and the immigration of highly educated people.[28] On average, our 15-year-olds rank relatively highly in reading and science compared to their counterparts in other countries as measured by the Programme for International Student Assessment (PISA), although our ranking in maths has fallen significantly in the 10 years or so. Of more concern, however, is that our achievement scores have been declining in all three subjects (see Figure 2.3).[29] More positively, the number of young people leaving school with qualifications has been improving over time, perhaps reflecting the broader curriculum of our National Certificate of Educational Achievement (NCEA).

We also have a big gap between the highest-achieving and lowest-achieving students by OECD standards. While the gap appears to have closed slightly over time, this is only because achievement of the advantaged group has dropped by more than the disadvantaged group (levelling down rather than up).

There is a range of competing theories for the declining trend in school educational achievement. Given that many OECD countries have experienced a similar trend, explanations that resonate across countries are appealing.[30] A potential cross-country explanation is around the extent to which teaching methods have supported the effective use of the internet and social media in classrooms, alongside their potential to distract young people from studies and other learning opportunities. Negative trends in youth mental health may also play a role.

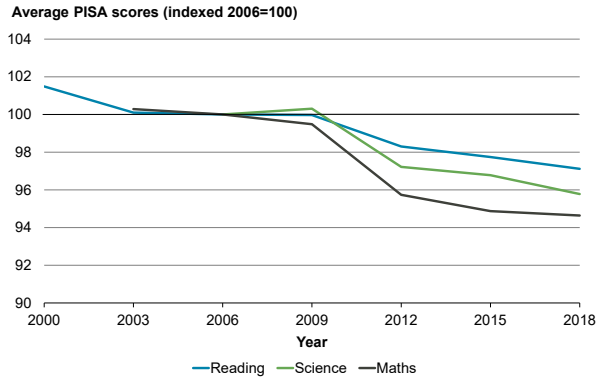
However, it is possible that different factors are driving the downward trend in different countries. An important factor in Aotearoa New Zealand may be the steady decline in school attendance rates over the past decade. There is a strong relationship between attendance and student attainment to the extent that every absent day matters. Attendance is particularly important for students with the highest levels of socioeconomic deprivation and attendance has been falling the most for schools that serve those communities (see Figure 2.4).[31]

There are several other potential explanations for declining educational achievement, including changes in the curriculum that decreased emphasis on reading, writing and arithmetic, the move away from external examination under NCEA, and social inequality or disadvantage. The evidence is not conclusive and is likely to be a mix of factors and different combinations of factors for different groups.[32]

Despite fears that disruptions to education could further exacerbate achievement challenges during the pandemic, achievement has generally held up across different population groups over 2020.[33] While we had full or partial school closures for 20% of days between February 2020 and October 2021, New Zealand had fewer days of school closures than most other OECD countries, and a higher-than-average number of students with online learning access at home.[34]

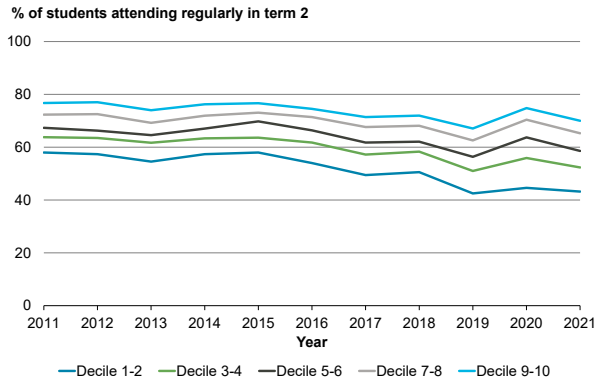
However, disruptions to education have been more substantial over 2022. The proportion of students attending regularly in term 1 has fallen from 67% in 2021 to 46% in 2022[35] which coincided with the COVID-19 outbreak.[36] While we would expect attendance to improve over the rest of 2022, there are risks of achievement issues emerging.

Figure 2.3: Our 15 year-olds are scoring lower in reading, science and maths over time[37] (LSF Dashboard indicator)



Source: OECD PISA Database, Stats NZ

Figure 2.4: Attendance rates have been falling over time, particularly in low-decile schools[38] (LSF Dashboard indicator)



Source: Ministry of Education

28 Ministry of Education & Ministry of Business, Innovation and Employment, 2016.
29 OECD, 2019a.
30 Australia and the Netherlands are two examples experiencing a similar decline over the last 10 years. However, interestingly the UK and USA results are flat.
31 Webber, 2020b.
32 For a review of the evidence on the possible drivers of the decline in PISA scores, see: McNaughton, 2020.
33 Webber, 2021.
34 OECD, 2021a.
35 Data for the longer-run series of attendance in term 2 was not yet available for 2022 when this report was published. Education Counts, 2022.
36 For more analysis of the impact of COVID-19 on school attendance, see Webber, 2020a, 2020b.
37 These are average PISA scores. PISA is the Programme for International Student Assessment overseen by the OECD. PISA measures the reading, mathematics and science skills of 15-year-olds. The scores have been indexed such that the score for each subject is set to 100 for 2006. This allows the relative change to be compared, showing that the mathematics score in 2018 was a little under 95% of the 2006 score, a larger relative drop than for the other two subjects.
38 A school's decile measures the extent to which the school's students live in low socio-economic or poorer communities. Decile 1 schools are the 10% of schools with the highest proportion of students from low socio-economic communities.

BOX F: EDUCATIONAL OUTCOMES FOR PACIFIC PEOPLES

This box looks at educational outcomes from a Pacific peoples' perspective to broaden understanding of these trends.

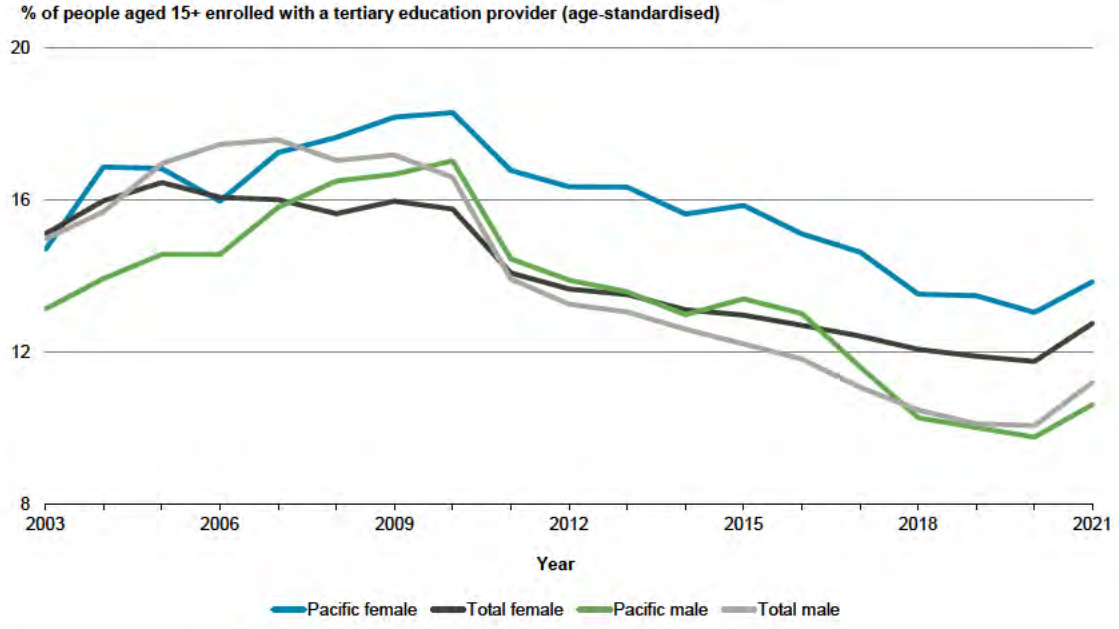
Education plays a vital role in developing the knowledge, skills and attitudes that can open the door to higher-paying jobs, better health outcomes, and wider wellbeing benefits. While Pacific peoples' educational participation and achievement have been improving, there are still gaps with other groups across the three levels of education:

- Despite pre-pandemic growth, Pacific children's participation in early childhood education is still slightly lower than the average rate – 92% versus 97% in June 2022.[39]
- Pacific students are not an exception to the overall decline in PISA scores in Aotearoa New Zealand and their PISA scores continue to be significantly below the overall average. However, compared to a decade ago, many more Pacific students are leaving school with at least a NCEA level 2 qualification, and the proportion is now close to the overall average – 76% versus 79%.[40]
- As shown in Figure F.1, Pacific students enrol in tertiary education at about the same rate as the total population, with particularly high participation by Pacific women[41]. However, participation is not always converting into qualifications. Completion rates were 11 percentage points lower than the Aotearoa New Zealand average in 2021.[42]

Pacific students reported higher levels on some education wellbeing indicators than the average overall population.[43] For example, Pacific students were more likely than the average population to report that they felt safe at school, and that they make friends easily at school. They also reported high levels of encouragement and support from parents and teachers.

On the other hand, the National Youth Health and Wellbeing Survey[44] found that worrying about basic needs (paying for one or more of food, electricity, rent/mortgage or petrol/transport) was more of a burden for Pacific students. Pacific students were also more likely to be physically hit or harmed and to experience discrimination because of their ethnicity.

Figure F.1 Tertiary participation rates higher among Pacific women, even as rates fall overall



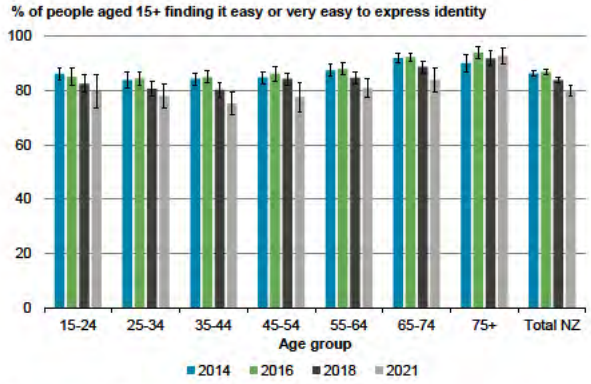
Source: Education Counts, 2022

39 Education Counts, 2022.
40 Education Counts, 2022.
41 Education Counts, 2022.
42 Education Counts, 2022.
43 Ministry of Education, 2019.
44 Ministry of Social Development, 2022.

CULTURAL CAPABILITY AND BELONGING

Cultural capability and belonging speaks to our ability to connect with others who we share a culture with. We have only relatively patchy information on cultural capability and belonging, but the information we do have paints a generally positive picture. We have high rates of self-reported belonging and ability to express identity, although there has been a slight decline in recent years (see Figure 2.5). Rangatahi Māori, Pacific and Asian young people have the strongest connections to their culture.[45] The long decline in the number of te reo Māori speakers also appears to have levelled off (see more about this in Chapter 4).

Figure 2.5: Most people find it easy to express their identify but the proportion has declined slightly in recent years (LSF Dashboard indicator)



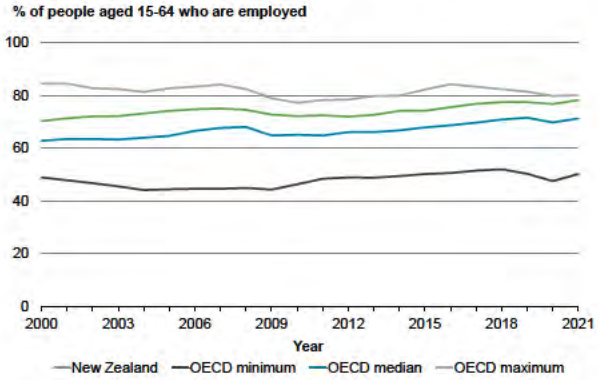
Source: Stats NZ, General Social Survey

WORK, CARE AND VOLUNTEERING

This domain is a particular area of strength in Aotearoa New Zealand. We have consistently had one of the highest employment rates in the OECD since at least the turn of the century (see Figure 2.6). We also have high levels of job satisfaction in most industries.[46] Employment matters as work not only provides income but also contributes to social connection and self-identity. Research into subjective wellbeing shows that losing a job has significant negative effects on health and happiness beyond the loss of income, while being in satisfying work promotes overall life satisfaction.[47] New Zealand also has the highest rate of voluntary work in the OECD.[48]

Unemployment fell significantly over the 1990s and has stayed relatively low this century, apart from an upward spike during the Global Financial Crisis. While there was a sharp increase in unemployment in the second half of 2020, this increase was less severe than that in most other countries, and we returned quickly to pre-pandemic levels, if not lower. Employment and unemployment rates have recovered for all ethnicities, genders and age groups, although pre-pandemic disparities remain (see Figure 2.7).

Figure 2.6: A high proportion of us have had jobs since at least the turn of the century (LSF Dashboard indicator)

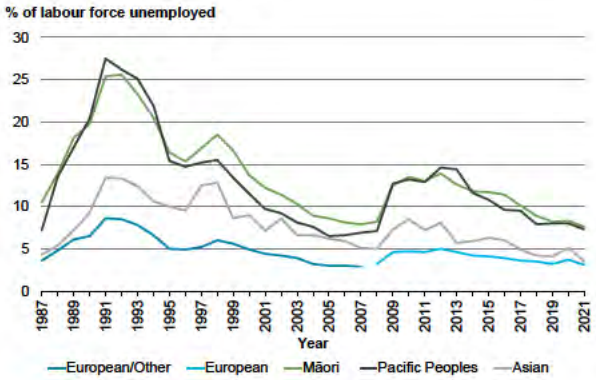


Source: OECD Employment Database

45 Ministry of Social Development, 2022.
46 Stats NZ, 2019b.
47 For example, Ford, et al., 2018 and Clark, 2018.
48 OECD 2020.

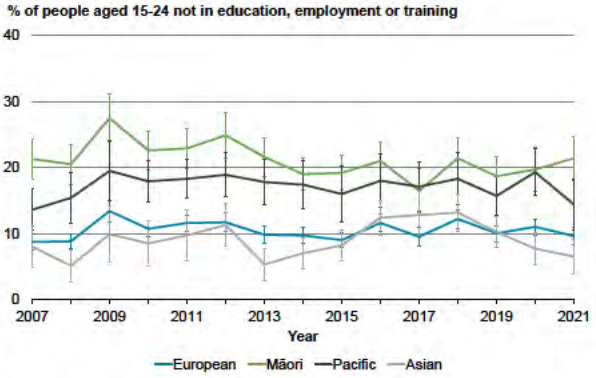
A contrast to this generally positive picture is the number of young people not in employment, education or training (NEET), where our performance is middling by international standards.[49] NEET rates are also higher among Māori and Pacific peoples (see Figure 2.8). The young people that are most at risk of being NEET or experiencing limited unemployment more broadly, over long periods of time are those experiencing intergenerational benefit dependency, those who have had contact with Oranga Tamariki and/or the justice system, young parents and those with no or low qualifications.[50]

Figure 2.7: Unemployment has fallen for all ethnic groups (LSF Dashboard Indicator)[51]



Source: Stats NZ, Household Labour Force Survey, and Ministry of Social Development, 2016

Figure 2.8: Many of our young Māori and Pacific peoples are not in employment, education or training (NEET) (LSF Dashboard Indicator)

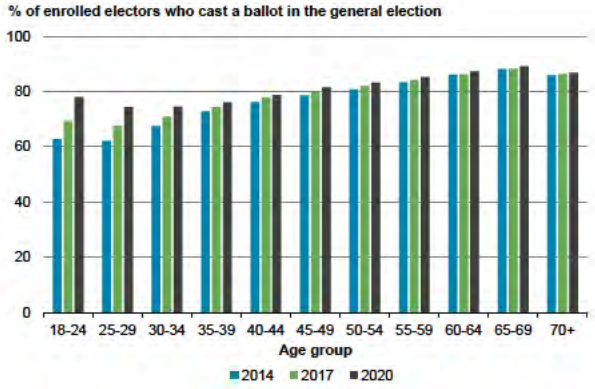


Source: Stats NZ, Household Labour Force Survey

ENGAGEMENT AND VOICE

Engagement in the processes of democratic self-government is generally good in Aotearoa New Zealand. However, voter turnout in local democracy is low and declining. Youth voting is also lower than other age groups, although it increased in the general last election (see Figure 2.9). Young people are also more pessimistic about whether voting is likely to make a difference.[52]

Figure 2.9: Younger people are less likely to vote (LSF Dashboard Indicator)



Source: Electoral Commission

49 Living Standards Framework - Dashboard (treasury.govt.nz)
50 McGirr & Earle, 2019.
51 Note that there was a change in the way ethnicity was recorded in 2007. After this date, a single person with multiple ethnicities appears in all relevant series. Prior to this date, ethnicity was assigned using a priority order, with Māori trumping all other ethnicities, followed by Pacific, Asian, other and finally European. Rates are reported as at December in each year.
52 OECD, 2020.

BOX G: CHILD WELLBEING

The wellbeing of youth has been a theme throughout this chapter, including relatively negative outcomes in mental health, education and housing compared to older people. Children have been less well covered because we have much less data for those aged under 15. This is unfortunate as the wellbeing of children really matters: there is substantive evidence around the importance of childhood, particularly the early years, for development and life-long outcomes.[53] More on this 'life cycle' perspective is provided in Chapter 3.

Child wellbeing has multiple influences, but parents, whānau and the immediate home environment exert the most profound influence, which is in turn influenced by the wider community and society. The information in this box is not comprehensive but highlights a few areas where we do well and a few where we could do a lot better.[54]

Aotearoa New Zealand is a good place to grow up for many children. Fewer of our children are born with low birth weight than in other OECD countries, and parents generally report their children to be healthy, particularly parents of Asian children. Historically high infant mortality rates have significantly reduced between 1996 and 2018, including in rates of sudden unexpected death in infancy.[55] Around 97% of our children participated in organised pre-school learning, which is a plus given evidence of its positive developmental impacts for disadvantaged children.

However, some children live in poverty. Children in disadvantaged groups also experience much greater levels of residential mobility and overcrowding than those in other groups.[56] In each census year since 1991 there has consistently been around 16% of children under 15 years old living in crowded households, including around 5% living in severely crowded households. These rates are more than double for our Pacific children.[57]

Safety is particularly important for the wellbeing of children. We have high rates of bullying (see Figure 2.19). Unintentional injury is a leading cause of death for children, and Aotearoa New Zealand was ranked worst in 2007 out of 24 OECD nations for rates of death from injury for those under 20 years of age.[58] Many more non-fatal injuries occur.[59] There are, however, signs of improvement, with decreases in the rates of serious injuries for children over the last 20 years.[60]

COVID-19 has brought further challenges for children. Surveys of parents and children suggested that their wellbeing held up well over the pandemic.[61] However, there are developmental risks from greater disruptions to early and school education over 2022. These may impact most on our younger children given the critical importance of the early years to development.

53 For example, three recent New Zealand research projects that reinforce how disadvantage in the household negatively impacts on child wellbeing and development in early childhood are summarised in Davies et al., 2022.
54 For more information on child wellbeing, see Duncanson et al., 2021.
55 Duncanson et al., 2021.
56 Prickett et al., 2022.
57 Duncanson et al., 2021.
58 UNICEF, 2007.
59 Growing Up in New Zealand, 2014.
60 Duncanson et al., 2021.
61 Department of the Prime Minister and Cabinet, 2022.

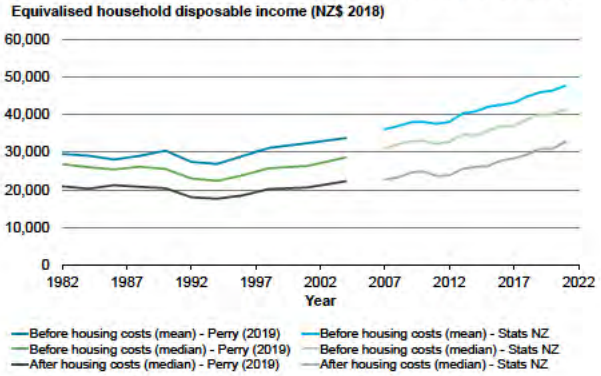
INCOME, CONSUMPTION AND WEALTH

Income and consumption have grown significantly over time, and our material standard of living is far higher than in the past. After hitting a low point in 1994, average household disposable income has been climbing steadily (see Figure 2.10).[62] Aggregate measures of consumption have also increased steadily in recent years. Household income remained resilient through the pandemic, and while there were declines in consumption during lockdown periods, it rapidly recovered.

Despite the growth in incomes since the mid-1990s, New Zealand is still below the median country for average household incomes (see Box H). In contrast, we are above the median country for median household wealth (see Figure 2.11).

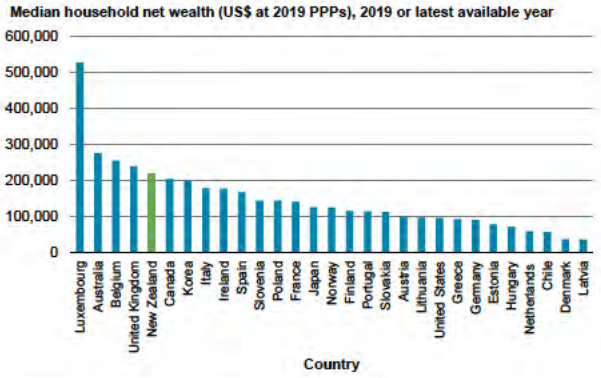
This simple story also masks significant complexity in the distribution of income, consumption and wealth, which is explored in more depth in Chapter 3.

Figure 2.10: Average household incomes have been increasing since the mid-1990s (LSF Dashboard indicator)



Source: Perry, 2019, using data from the Household Economic Survey, with additional calculation by the Treasury

Figure 2.11: We have relatively high household net wealth compared to other countries (LSF Dashboard indicator)



Source: OECD (provided directly)

62 Income can be measured in several different ways, taking into account things like different household sizes, taxes and transfers and inflation. The most comprehensive estimates of household income in Aotearoa New Zealand come from a series of reports over several years by Bryan Perry, from the Ministry of Social Development, using a measure called real equivalised household disposable income, which takes household size into account. The most recent calculations by Perry go up to 2018. Stats NZ has provided estimates for the period 2007-2021, but these are derived using a slightly different methodology and may not be comparable to the earlier Perry series.

BOX H: LONG-TERM DRIVERS OF INCOME IN NEW ZEALAND

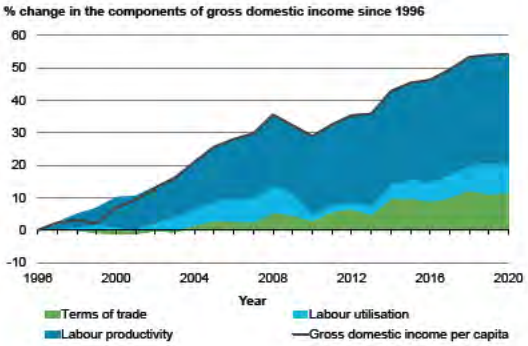
Another way to understand changes in our incomes over time is to look at growth in our gross domestic product (GDP) per capita. GDP measures the value of the goods and services produced within Aotearoa New Zealand.[63] From the late-1960s to the mid-1990s, real GDP per capita grew in Aotearoa New Zealand, but at a slower rate than in other high-income OECD countries. Aotearoa New Zealand reversed its relative GDP per capita decline in the early 1990s, but we still did not catch up to the levels of other high-income countries. This is because, even though we have lots of people in work (labour utilisation), our workers produce less per hour than workers in other countries (productivity growth).

However, our incomes have grown more than would be expected from our GDP performance. Another measure of aggregate incomes is real gross domestic income (GDI). In contrast with GDP, GDI also captures increases in income from changes in our terms of trade or the price of our exports relative to our imports. Since the early-2000s, New Zealand's per capita real income has grown faster than its per capita GDP – reflecting a rising terms of trade. This has been driven largely by increases in export prices, particularly – but not only – dairy prices. It has also been influenced by a change in the composition of imports before the early 2000s and declines in import prices since the Global Financial Crisis.

Therefore, looking only at GDP under-states our income growth since the turn of the century. That may partly explain the puzzle that Aotearoa New Zealand performs strongly on many wellbeing-type indices, including the United Nations Human Development Index[64] and the OECD Better Life Index,[65] in comparison to our relatively lower GDP per capita. We have more income to spend on things that support our wellbeing than implied by the GDP measure.

However, our improving terms of trade have still not allowed us to reach the income levels of the higher-income OECD countries. Figure H.1 shows the contribution that the terms of trade have made to our income growth. It also shows that labour productivity has been the main source of income growth. Given that we also cannot rely on ever-improving terms of trade, this reinforces the importance of lifting productivity to provide sustainable increases in material living standards for both current and future generations.[66]

Figure H.1: Labour productivity is the largest factor in our economic growth



Source: New Zealand Productivity Commission, 2021b

63 Excluding some important categories such as goods and services produced in the home.
64 https://hdr.undp.org/data-center/human-development-index#/indicies/HDI
65 https://www.oecdbetterlifeindex.org/
66 To find out more, see Janssen et al., 2022.

HOUSING

Housing takes up a high share of our income in Aotearoa New Zealand. Over the last two decades, house prices have been increasing faster in Aotearoa New Zealand than in any other OECD country, and we have experienced the greatest increase in the ratio of house prices to income across OECD countries.[67] Except for the Slovak Republic, we paid the highest share of our income on housing in 2019.[68]

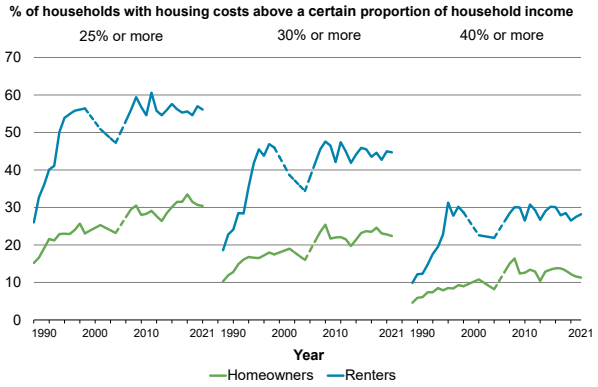
However, renters tend to pay a much greater proportion of their income on housing than homeowners, following a large increase in the 1990s (see Figure 2.12). Renters in the lowest income quintile also pay a larger share of their income on housing than similarly positioned renters in any other OECD country.[69] Renters also tend to live in houses of lower quality. Rentals tend to be smaller and are more likely to be crowded than owner-occupied housing, and are also more likely to be in a poorer state of repair, less healthy and less conducive to stable tenure.[70]

This situation is cause for concern in a context where owner-occupation rates have been falling for almost four decades and are lower than the OECD average,[71] with first-home deposits taking almost twice as long to save as they did in 2011 (see Figure 2.13). Home ownership is also not equally distributed. Rates of home ownership are higher for Pākehā, for older people and for people who are not disabled.[72]

These issues have resonance for young people, who are more likely to rent than own and are facing increasing challenges in getting on the housing ladder. Older age groups have disproportionately benefited from the long-term increase in house prices. Since the turn of this century, the gap between wealth of the over 65s and under 35s has more than doubled, with house prices being an important contributing factor.[73]

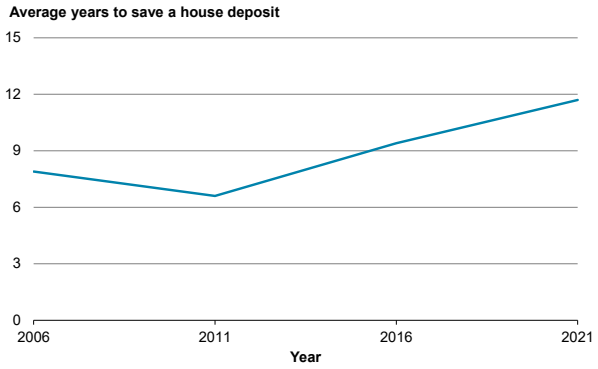
There has also been an increase in the total number of people in severe housing deprivation between 2013 and 2018, defined as being without shelter or being in emergency and transitional accommodation.[74] While the number of people without shelter or in publicly funded temporary accommodation fell over this period, there was an increase in those who were a temporary resident in a severely crowded private dwelling. We do not have more recent data on total severe housing deprivation as this data is only collected in the census. However, we have seen a continued upward trend in public housing applications in recent years, particularly for Māori.[75] The number of households in emergency housing surged over the lockdown periods, particularly in Auckland. However, this surge has since subsided.[76]

Figure 2.12: Renters spend a higher share of their income on housing than homeowners (LSF Dashboard indicator)[77]



Source: Stats NZ, Household Economic Survey

Figure 2.13: It takes almost twice as long to save for a house deposit as it did 10 years ago



Source: CoreLogic, 2022

67 https://data.oecd.org/price/housing-prices.htm
68 https://www.oecd.org/wise/how-s-life-23089679.htm
69 Perry, 2021a.
70 Stats NZ, 2020b.
71 Stats NZ, 2020b.
72 Stats NZ, 2020b.
73 See Figure 3.12.
74 Amore et al., 2021.
75 Housing Register: https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/statistics/housing/housing-register.html
76 Housing Dashboard: https://www.hud.govt.nz/stats-and-insight/the-government-housing-dashboard/housing-dashboard-at-a-glance/
77 The Household Economic Survey has run every year apart from a period when it ran every three years (from 1998 to 2007). Missing values over that time are filled using a linear interpolation method.

ENVIRONMENTAL AMENITY

Our air quality is generally very good by international standards, particularly in terms of the prevalence of small particles in the air. The smaller particles, below 2.5 microns in diameter, are the most harmful to our health. On this measure, known as PM2.5, essentially no one is exposed to small particles above the threshold level. For slightly larger particles, known as PM10, we have seen an improving trend but some places have levels over thresholds set in resource management regulations.

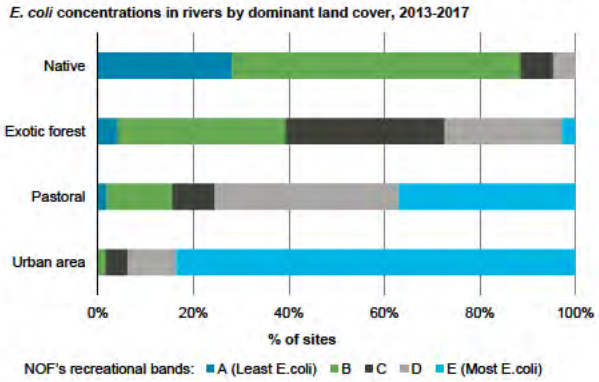
The majority of people find it very easy to get to their local green space or park, although rates are lower for disabled people, for people in households with low incomes and Pacific peoples.[78]

The areas of greatest concern are around freshwater. In particular:

- In its National Objectives Framework (NOF), the Ministry for the Environment has defined five separate bands of increasing concentration of *Escherichia coli* bacteria, based on the likelihood of becoming sick if using the river. Figure 2.14 shows that *E. coli* is above levels that are safe for swimming in many of our rivers, particularly in urban areas.
- About one in five of us is supplied with drinking water that is not treated to all the relevant standards and so may at times be unsafe.[79]
- The proportion of people who think the quality of the environment is good or very good has declined over time, with people most concerned about the quality of our fresh water.[80]

While COVID-19 led to some temporary improvements in some environmental measures from reduced economic activity such as lower greenhouse gas emissions and better air quality, these indicators have largely returned to 'business as usual' as economic activity recommenced.[81]

Figure 2.14: A bigger share of our urban rivers have too much *E. coli* for safe swimming (LSF Dashboard Indicator)



Source: Stats NZ, Environmental Indicators

78 Living Standards Framework – Dashboard (treasury.govt.nz)
79 Living Standards Framework – Dashboard (treasury.govt.nz)
80 Living Standards Framework – Dashboard (treasury.govt.nz)
81 Stats NZ COVID-19 data portal: https://www.stats.govt.nz/experimental/covid-19-data-portal

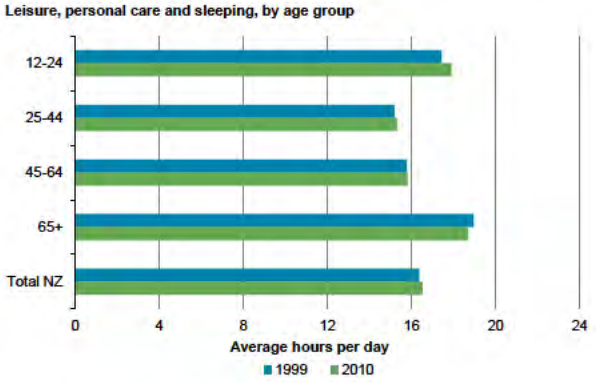
LEISURE AND PLAY

Time use has been comprehensively investigated on two occasions in Aotearoa New Zealand with the Time Use Surveys of 1999 and 2010. Although this information is somewhat dated, it is the best comprehensive data source we have for now. On average, all age groups spend at least 15 of every 24 hours on leisure and personal care, but the young and old have more free time. The amount of free time people enjoy was pretty stable between 1999 and 2010, with the exception of the young who appear to have a little more free time, and the old, who appear to have a little less (see Figure 2.15).

People in Aotearoa New Zealand have typical levels of free time on average in comparison to other OECD countries (see Figure 2.16), with free time being more evenly spread between men and women after accounting for paid and unpaid work.

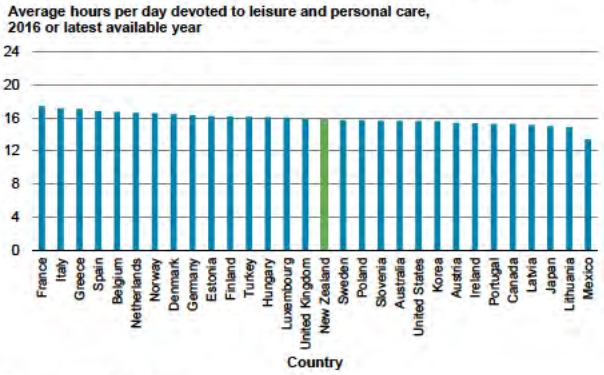
There is significant variation around the average hours of paid work, with some people working relatively few hours and some working very long hours. A substantial minority of people, mostly men, engage in paid work more than 40 hours a week – sometimes much more than 40 hours (see Figure 2.17). A lack of free time is most prevalent in mid-life, particularly for parents of small children.

Figure 2.15: The amount of free time we have is staying about the same over time; but the young and old have more of it (LSF Dashboard indicator)



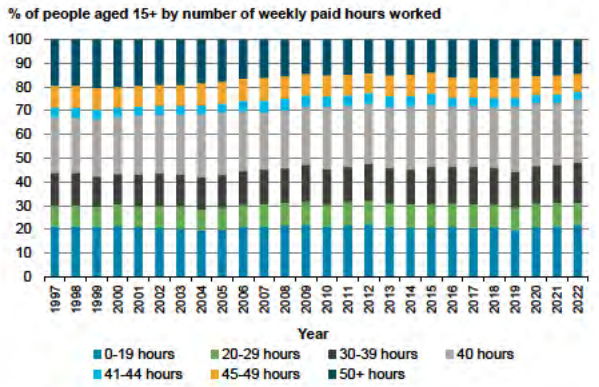
Source: Stats NZ, Time Use Survey

Figure 2.16: We have similar amounts of free time as people in other OECD countries (LSF Dashboard indicator)



Source: OECD Database

Figure 2.17: Some of us are working long hours, but the proportion is falling over time[82]



Source: Stats NZ, Household Labour Force Survey

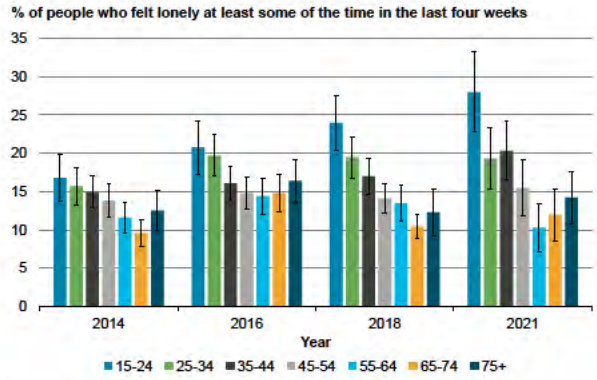
82 Data for year 2022 is only available for the first two quarters.

FAMILY AND FRIENDS

The data shows that we have strong relationships with our friends and family. A high proportion of people report they have friends or relatives they can count on in times of trouble, compared to other OECD countries.[83] However, a smaller proportion of people than in the past report it would be easy to ask someone they know for help if they needed a place to stay urgently.[84]

People in Aotearoa New Zealand are also quite sociable. We spend nearly eight hours a week socialising on average, which is more than people in most other OECD countries.[85] Despite this, there has been quite a substantial increase in loneliness since 2014, particularly for young people (see Figure 2.18). Loneliness was also far more prevalent among younger people over the COVID-19 lockdowns.[86]

Figure 2.18: Younger people are getting more lonely (LSF Dashboard indicator)



Source: Stats NZ, General Social Survey

SAFETY

We have become safer over time across nearly all measures of safety, but in some areas, we are not as safe as people in most other OECD countries. For example:

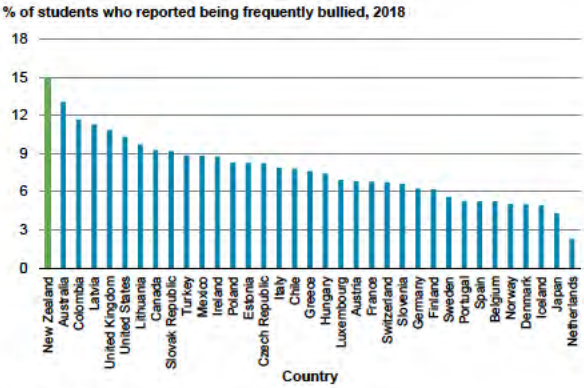
- New Zealand is around or slightly above the middle of the OECD on rates of intentional homicide.[87]
- Like in most OECD countries, the road toll has trended down over time. However, a period of rising fatal accidents between 2013 and 2017 means that we are now less safe on the roads than people in most OECD countries, even though the downwards trend has resumed over the past few years.[88]

Safety in different contexts depends very much on gender. Men are less safe on the roads and at work, but women feel far less safe than men when walking in their neighbourhoods and are more vulnerable to crimes such as family violence.[89]

Safety is particularly important for the wellbeing of children given their vulnerability. Aotearoa New Zealand has perhaps the worst problem with bullying among OECD countries (see Figure 2.19). The bullying data does not paint a clear picture over time, so we do not know for sure if this problem is improving or getting worse. However, bullying remains prevalent. The National Youth Health and Wellbeing Survey found that young people felt less safe at school than in other environments.[90] More than one-third (37%) said they had experienced bullying in the last 12 months. The most common type of bullying was verbal abuse.

COVID-19 lockdowns and other public health restrictions appear to have reduced exposure to a range of harms beyond the virus itself. There were fewer deaths overall than expected in 2020, reflecting for example fewer road deaths and workplace injuries, and less spread of other communicable diseases such as the flu, but a return to previous levels in 2021.[91]

Figure 2.19: Our children are more likely to be bullied than children in other OECD countries



Source: OECD, 2019c

83 Living Standards Framework – Dashboard (treasury.govt.nz)
84 Living Standards Framework – Dashboard (treasury.govt.nz)
85 OECD, 2020.
86 Stats NZ, 2021c.
87 Living Standards Framework – Dashboard (treasury.govt.nz)
88 Living Standards Framework – Dashboard (treasury.govt.nz)
89 Living Standards Framework – Dashboard (treasury.govt.nz)
90 Ministry of Social Development, 2022.
91 Living Standards Framework – Dashboard (treasury.govt.nz)

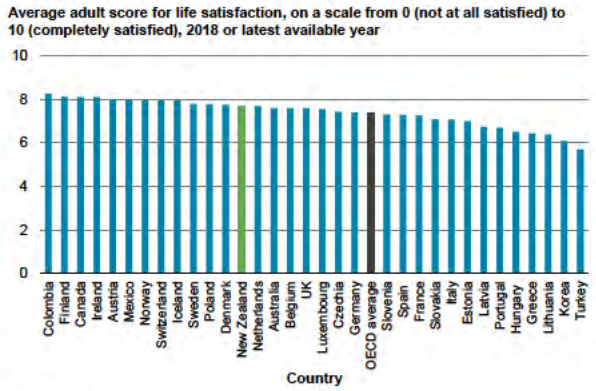
SUBJECTIVE WELLBEING

Subjective wellbeing refers to how people experience and evaluate different aspects of their lives. There are three dimensions to subjective wellbeing: being satisfied with one's life overall, having a sense of meaning and purpose, and 'negative affect balance' (the extent to which people experience more negative than positive emotions). People in Aotearoa New Zealand generally have relatively high subjective wellbeing compared to other OECD countries, across all three of these dimensions (Figure 2.20 shows the life satisfaction measure).

There are modest differences by age, with the oldest people being the most satisfied and reporting higher levels of meaning and purpose in their lives.[92] There are large differences by disability status, with life satisfaction (see Figure 2.21) and levels of meaning and purpose being much lower among disabled people.

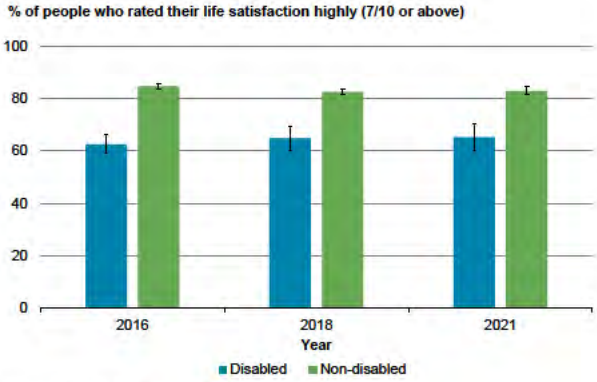
In line with international experience, our average life satisfaction has held up though the pandemic. Reported life satisfaction was slightly higher in the first year of COVID-19, compared to 2018, particularly for Pacific peoples, parents, and older people. There was a slight decline in life satisfaction as the pandemic stretched out and it was lower during periods of lockdown.[93] The August 2020 lockdown in Auckland also appears to have had the largest negative impacts on life satisfaction among Pacific people and sole mothers.[94]

Figure 2.20: People are, on average, more satisfied with their life than people in other OECD countries (LSF Dashboard indicator)



Source: OECD, 2020

Figure 2.21: Disabled people have lower levels of life satisfaction (LSF Dashboard indicator)

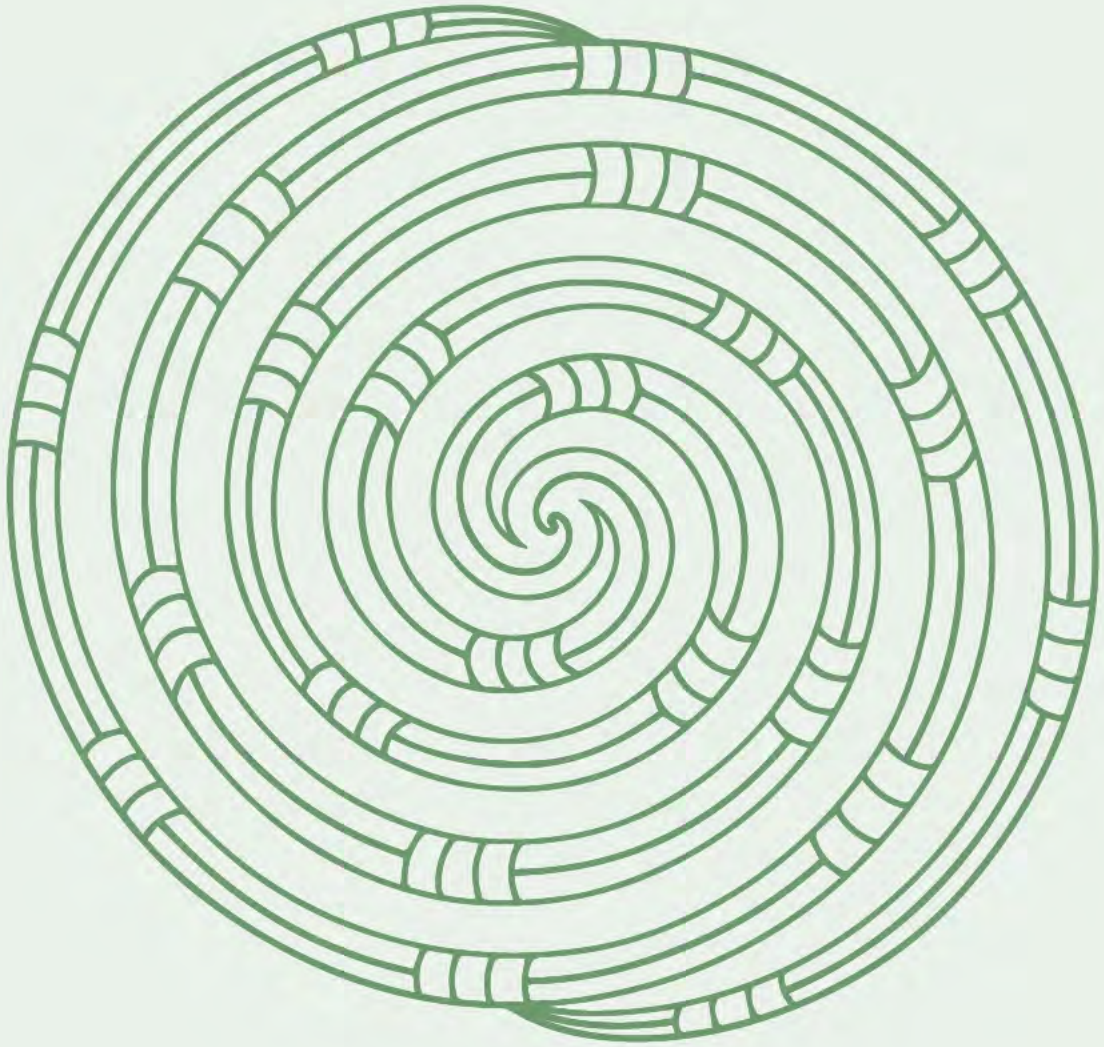


Source: Stats NZ, General Social Survey

92 Living Standards Framework – Dashboard (treasury.govt.nz)
93 See the background paper to this report, *Our wellbeing throughout the COVID-19 pandemic* (The Treasury 2022f) for detailed analysis of the life satisfaction data collected by Stats NZ throughout 2020 and 2021 through supplements to the Household Labour Force Survey.
94 Webber et al., 2022.

3

Distribution of wellbeing in Aotearoa New Zealand



CHAPTER 3: THE DISTRIBUTION OF WELLBEING

This chapter explores in more detail the way in which people experience wellbeing, focusing on differences between those with high and low wellbeing across multiple domains.

Key messages

- **Some of us in Aotearoa New Zealand have quite high wellbeing, some of us have quite low wellbeing and most of us are somewhere in between.**
- **Some groups of people have lower average wellbeing in many domains,** including disabled people and people in sole parent families.
- **Some people have low wellbeing in several domains at once.** Multiple disadvantage lowers life satisfaction in the present and creates overlapping barriers to achieving high wellbeing in the future.
- **Some people with low material wellbeing move out of this situation over time,** but others experience hardship and poverty as a recurrent part of their lives.
- **Children raised by parents with low wellbeing often do less well themselves over the life course.** Our education system does less to counteract early disadvantage than those in other countries.
- This helps explain why **our levels of intergenerational mobility appear to be lower than in countries like Denmark,** even if they are higher than in countries like the USA.
- **Material hardship rates have fallen over time,** but income inequality appears largely unchanged since increasing in the 1990s. Housing markets play an important role in shaping inequality and hardship – inequality is higher after accounting for housing costs. Our labour markets have a flatter earnings structure than most other OECD countries.
- **Wealth inequality is higher than income inequality** but does not appear to have changed in recent years.

Overview

In Chapter 2 we looked at trends across the 12 wellbeing domains of the Living Standards Framework – health, housing and so on. We saw that some of us in Aotearoa New Zealand have quite high wellbeing, some of us have quite low wellbeing and most of us are somewhere in between. This distribution between high and low wellbeing can be considered in several ways.

A simple way to consider the distribution is to compare the average wellbeing between subpopulations at a single point in time and one domain at a time. In the first part of this chapter, we highlight that there is a large gap between the average wellbeing of disabled and non-disabled people in domains such as life satisfaction, housing, income, consumption and wealth, and friends and family, for example. The average wellbeing gap between people in sole parent families and people in other families is also quite large in many domains.[95]

In the second part of this chapter, we consider how different combinations of high and low wellbeing across the domains contribute to the overall experience of wellbeing, recognising that we don't live our lives one domain at a time. In considering this question, we draw particularly on recent Treasury work looking at the factors that are related to life satisfaction.[96]

About 5% to 10% of the population are experiencing low wellbeing in at least four domains, depending precisely on how 'low wellbeing' is defined in each domain. Many, but not all, of the people experiencing low wellbeing across multiple domains are members of groups with lower average wellbeing, such as disabled people.

In the third part of this chapter, we consider how much individuals move position in the distribution over time. Low wellbeing is more concerning when it persists, especially over the full life course. Some experiences of low wellbeing are short-lived, but others are persistent or recurrent. Much income poverty and material hardship is recurrent, for example, particularly for people without qualifications and people on benefits. On average, someone on benefit today can expect to spend 12 more years on benefit between now and when they turn 65.

We also highlight that the distribution of wellbeing echoes between generations. Children raised by parents low in the distribution of wellbeing, particularly boys, do much less well at school and tertiary levels than children of more advantaged parents. An increasing number of children are failing to achieve

95 See the background paper to this report, Trends in Wellbeing in Aotearoa New Zealand, 2000-2020, (The Treasury, 2022b) and Our wellbeing throughout the COVID-19 pandemic (The Treasury, 2022f). The wellbeing of Māori is considered in the next chapter, with more detail available in the background paper Trends in Māori Wellbeing (Reid & Evans, 2022). Pacific peoples' wellbeing is discussed Thomsen et al., (upcoming), Pacific Peoples' Wellbeing.

96 See the background paper to this report, *Wellbeing in New Zealand: a population segmentation analysis* (The Treasury, 2022d).

even basic skills at school and this will affect their wellbeing, and that of the whole country, over the full course of their lives.

These educational trends help explain why children of rich parents are more likely to become rich themselves and the children of poor parents are more likely to become poor. Our levels of mobility between generations appear to be generally higher than in countries like the USA, but lower than in countries like Denmark.

In part four we turn to more familiar economic metrics such as income poverty, income inequality and wealth inequality.[97]

Our headline income inequality appears relatively stable, but data limitations make it hard to be sure. Housing is an important part of the income inequality story with both poverty rates and income inequality being higher after accounting for housing costs. Rates of hardship and income poverty have declined over time, including among children.

Wealth inequality is much higher than income inequality, and this only partly reflects lifecycle patterns of saving. Nearly all wealth is held by half the population, and over 60% of non-housing wealth is held by the wealthiest 10% of the population.

The distribution of wellbeing is produced by a complex interplay of personal choice and circumstances across several institutional contexts that are in turn shaped by policy settings.

At a high level it is notable that:

- our schooling system is less effective for learners from disadvantaged backgrounds than in comparable OECD countries
- our labour market has a flatter earnings structure compared to other countries
- our policy settings appear more successful at preventing hardship among over-65s than among under-18s.
- a combination of tax settings, a large fall in interest rates and restrictive land use regulations has inflated house prices, advantaging a cohort of owner-occupiers and investors but disadvantaging others, including renters
- low competition in some markets may be resulting in higher profits that benefit some but not others.

The data in this chapter can be interpreted in different ways. The extent to which the distribution of wellbeing is concerning or not is ultimately a value judgement. We do not offer definitive conclusions on whether the trends we report on are "equitable" or not. However, readers may want to consider some key theories of distributive justice when examining the data presented below. These are summarised in Box I and more detail is available in the background paper.[98]

BOX I: VALUE JUDGEMENTS

In public policy, it is elected representatives such as Ministers who make 'value judgements' on behalf of the population when they make policy decisions. It is not the job of public servants to make value judgements, and the Treasury does not take a position on these matters. However, the Treasury can support elected representatives in making value judgements by identifying the normative issues at stake and the trade-offs and tensions between different values.

The data shows that the state of wellbeing in Aotearoa New Zealand is not equally distributed, but an unequal distribution does not necessarily mean that it is inequitable, unjust or unfair. Making an assessment about equity depends on applying normative assumptions, or value judgements, to the data. Key value judgements might include the following:

- The goal should be to maximise the total aggregate amount of wellbeing in society. How this wellbeing is distributed across different people doesn't matter, except insofar as it impacts on the aggregate amount (utilitarianism).
- What matters most is the absolute position of the people who are worst off, not how badly they are off compared to others. Inequality of things such as income or wealth is only permissible if it is to the advantage of the worst off, for example, if it increases the amount of economic product that is redistributed to the worst off (maximin).
- If the actions and processes that lead to a given distribution of wellbeing were fair and just, then the distribution is fair and just (libertarianism).
- It is equal opportunities that matter, not equal outcomes. Outcomes that are the result of choices people have made are fair. Outcomes that are the result of factors outside someone's control are not fair (luck egalitarianism).
- What matters, ultimately, is the moral equality of people, and this requires that we can relate to each other as social equals. Inequality of wellbeing and economic inequality are morally problematic when they impact people's ability to live in society as equals (relational egalitarianism).
- Inequality of wellbeing itself is not necessarily a problem. What lies behind a concern with inequality is an intuition that we ought to give weighted priority to those who are worst off (prioritarianism).
- Inequality of wellbeing itself is not necessarily a problem. What lies behind a concern with inequality is a concern with poverty. We need to ensure that every person has enough, or sufficient, wellbeing (sufficientarianism).

97 See the background paper to this report, *The distribution of advantage in Aotearoa New Zealand* (The Treasury, 2022e).
98 See the background paper to this report, *Equality, Equity and Distribution* (Thompson, 2022).

Differences in average wellbeing between major subpopulations

One familiar and simple way to consider the distribution of wellbeing is to compare the average wellbeing of one group of the population (such as women) with another group, (such as men). When comparing averages in this way, it is important to remember that groups overlap in complex ways. For example, disabled people as a group are older on average than non-disabled people, and Māori and Pacific peoples are younger on average than other ethnic groups. It is also important to remember there is substantial diversity within each subpopulation group, and only some people in any subpopulation group will experience the 'average' for that group.

Disability

Data about disabled people is not as well developed as for other subpopulations, such as ethnic groups, but the data that exists reveals many large differences between the average wellbeing of disabled and non-disabled people. On average, disabled people report finding it harder to express their identity, report greater loneliness, have lower incomes, lower rates of home ownership, more difficulty getting adequate sleep, more difficulty accessing parks and green space, lower life satisfaction and a lower sense that life is worthwhile.[99]

While disability rates are higher among older age groups, disabled children are notably disadvantaged on average. For example, material hardship rates for disabled children are double those of non-disabled children (see Figure 3.1). Many children are also being raised by parents with disabilities, and these parents can find it more challenging to provide their children with the essentials. Half of all children in material hardship are in households with at least one disabled person.

Gender, family type and sexuality

We have limited data on the wellbeing of rainbow people in Aotearoa New Zealand.[100] This situation will be improved in future with Stats NZ working to incorporate this information into its surveys. In the meantime, evidence we do have shows that rainbow people report lower levels of life satisfaction and higher levels of mental distress and are more likely to report being excluded from social situations, suggesting a need to understand these phenomena in more detail.[101]

The data on simple male-female differences is more comprehensive. Taken as a whole, many of the differences between men and women are reasonably small. The main things that stand out are:

- for men and boys: lower life expectancy, lower school and tertiary achievement, higher rates of very long work hours, and a higher rate of occupational accidents[102]
- for women and girls: lower perceived safety, higher rates of psychological distress, and higher rates of 'negative' emotions such as sadness and worry.[103]

Considering paid and unpaid work together, women do more unpaid work than men, but the total amount of work is about the same. This is unusual by OECD standards. In most OECD countries women work more than men after considering paid and unpaid work together.

While there may not be many differences between the average woman and the average man, people living alone and especially sole parents are doing less well on many metrics, and these groups are disproportionately female. More than half of people living alone are women, and over 80% of sole parents are women. Compared to other family types, sole parent families have very low net worth,[104] higher rates of loneliness and low levels of life satisfaction.[105]

Sole parent families also have lower disposable incomes on average, as shown in Figure 3.2. This illustrates two important points about all comparisons between subpopulation groups. It is plain to see that the median income for sole parent family households is lower than that for other households with children, but it is also clear that some sole parent families have high incomes and some multi-adult households with children have low incomes. It is also clear that most households with children are not made up of sole parent families, and partly as a result, sole parent families make up only a minority of people at the bottom of the income distribution, even if poverty *rates* are much higher among this smaller population group.

99 Living Standards Framework - Dashboard (treasury.govt.nz)
100 We use the term rainbow, as per the rainbowtick.nz definition, to refer to people who identify as lesbian, gay, bisexual, transgender, takatāpui or intersex.
101 Health Promotion Agency, 2019. For detail, see Table 18 of the latest General Social Survey release https://www.stats.govt.nz/information-releases/wellbeing-statistics-2021/
102 Stats NZ, 2019a.
103 Living Standards Framework - Dashboard (treasury.govt.nz) and OECD, 2020.
104 Stats NZ, 2022a.
105 Living Standards Framework – Dashboard (treasury.govt.nz)

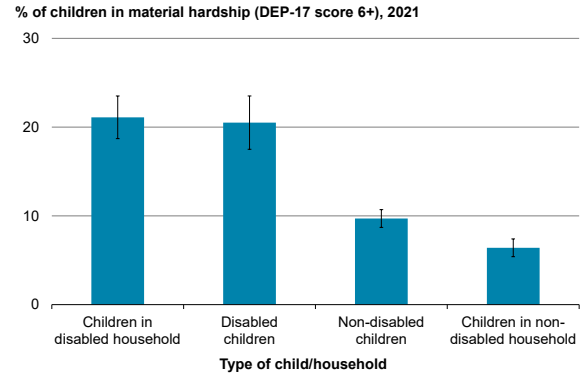
Age

Chapter 2 highlighted that younger people are doing less well than older people on many wellbeing metrics. While child poverty is declining, on a range of other metrics the wellbeing of children and younger adults is either poor, worsening or both. The proportion of 15 to 24-year-olds with high or very high levels of psychological distress is increasing[106] and teen suicide rates are among the worst in the OECD.[107] School attendance and cognitive skills at age 15 are in decline.[108] We also have the highest rate of bullying in the OECD.[109] The rate of young people not in employment, education or training is slightly higher than the OECD average and is climbing for young men.[110] Those under 25 are also least likely to report a high sense of belonging to Aotearoa New Zealand, are least likely to report that life is worthwhile, and are less likely to vote than young people in other OECD countries.[111]

Ethnicity

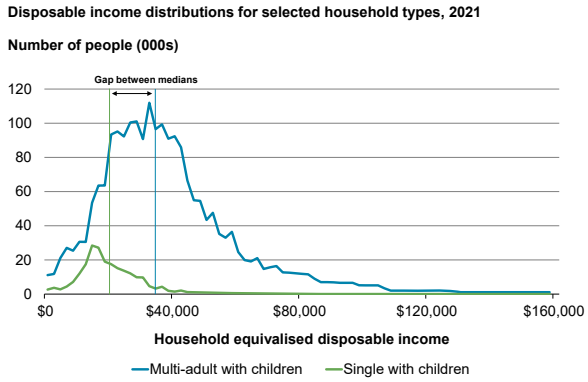
Māori and Pacific peoples are younger on average than other ethnic groups, and this partly explains why these groups are doing less well on average in many ways. While Pākehā had a median age of 41.4 years in the 2018 Census and Asian peoples had a median of 31.3 years, the Māori median was 25.4 years and the median for Pacific peoples was 23.4 years. However, there are also important differences between ethnic groups that are not explained by age alone. Some of the most notable ethnic differences from the LSF Dashboard are presented in Table 3.1. Māori wellbeing is explored further in Chapter 4, and you can read more on the wellbeing of Pacific peoples in Box J.

Figure 3.1: Hardship rates are much higher for disabled children and those living with disabled people



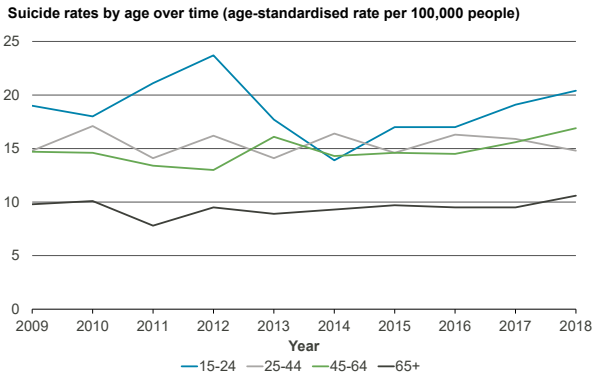
Source: Stats NZ, Household Economic Survey

Figure 3.2: There is a wide gap in incomes between sole parent households and other households with children but also a lot of overlap



Source: Treasury analysis of Household Economic Survey

Figure 3.3: Youth suicide rates are the highest among all age groups and are not improving over time



Source: Ministry of Health, New Zealand Mortality Collection

106 Living Standards Framework – Dashboard (treasury.govt.nz)
107 OECD, 2017b.
108 Living Standards Framework – Dashboard (treasury.govt.nz)
109 OECD, 2019c.
110 OECD Database – Transition from school to work: https://stats.oecd.org/Index.aspx?DataSetCode=EAG_TRANS
111 Living Standards Framework – Dashboard (treasury.govt.nz) and OECD, 2020.

Table 3.1: There are notable differences in wellbeing across ethnic groups

ETHNIC GROUP	BETTER POSITIONED RELATIVE TO OTHER GROUPS	LESS WELL POSITIONED RELATIVE TO OTHER GROUPS
Pākehā	Relatively strong in all wellbeing domains.	
Asian	Highest self-reported health. High cognitive skills. Lowest rate of young people not in education, employment or training (NEET). Lower levels of crime victimisation. Highest levels of multilingualism.	Lowest free time of all groups. Lowest social support, highest loneliness. Lowest proportion finding it easy or very easy to express identity.
Māori	High sense of belonging to Aotearoa New Zealand.	Low income more common. Highest NEET rate. Lower education achievement. Lower self-reported health. Higher levels of victimisation.
Pacific peoples	High sense of belonging to Aotearoa New Zealand. Lowest rates of loneliness.	Lowest wealth of all ethnic groups. Highest household crowding. Lower tertiary education achievement. Low income more common.

BOX J: SNAPSHOT ON PACIFIC PEOPLES' WELLBEING

Aotearoa New Zealand is home to a young and growing Pacific population. Over time the Pacific population has changed from a mainly migrant group to a largely New Zealand-born population. 97% of Pacific peoples live in urban areas. Two out of three live in Auckland.[112]

Pacific peoples in Aotearoa New Zealand encompass a range of backgrounds and experiences as well as ethnic, spiritual, religious and gender identities. The majority of Pacific peoples in Aotearoa New Zealand are Polynesian and thus share many similarities, including in their perspectives on the world, their environment, and their wellbeing.

Pacific peoples' key values, beliefs and practices, which shape their experience of wellbeing, frequently include:

- a strong emphasis on cultural identity and the role of families and communities
- the central role of spirituality and religion in communal and family life and wellbeing
- a focus on collective consensus, practices, needs and outcomes
- clear expectations about respect, reciprocity and love and a sense of responsibility to self, others, environment and cultural protocols and practices.[113]

A multi-dimensional wellbeing analysis illustrates the strength of relationships with family and friends among Pacific peoples. Pacific peoples are less likely to have high wellbeing, compared to the rest of the population, across all but the family and friends wellbeing domain (see Figure J.1).

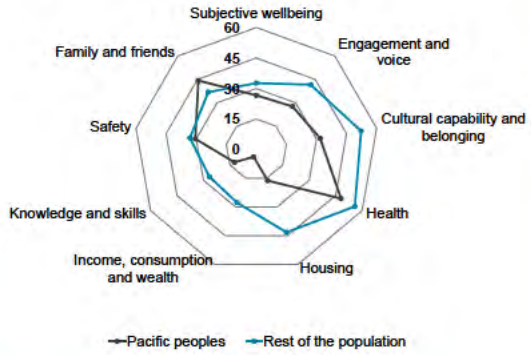
In contrast, almost two in five Pacific peoples live in overcrowded houses. Over 40% of Pacific houses are damp, cold and mouldy, with one out of 10 also needing major repairs. One in four Pacific children live in households experiencing material hardship.[114]

This is partly because Pacific peoples face disproportionally high unemployment and underutilisation rates and earn lower wages than the general population. Most of the pay gap can't be explained by qualifications and other job-related factors.[115]

This housing and income deprivation has negatively impacted Pacific peoples' health and education outcomes and aspirations. It has also limited the full utilisation of Pacific potential.

Turning the tide on these inequalities will help strengthen Pacific peoples' contribution to the local economy – a contribution that is significant at present but remains to be fully utilised. Current demographic trends indicate that, in 20 years, nearly one in five children and one in eight potential workers (people aged 15 to 39 years) will be of Pacific descent. As the Pacific population continues to grow, so too does their influence and importance to wellbeing in Aotearoa New Zealand.[116]

Figure J.1: Pacific peoples' wellbeing across the LSF domains (% reported high wellbeing, General Social Survey 2018) (LSF Dashboard indicator)



112 Stats NZ, Census 2018 data.
113 Ministry for Pacific Peoples, 2022.
114 Stats NZ, 2020b.
115 Cochrane & Pacheco, 2022.
116 Ministry for Pacific Peoples, 2022.

We experience wellbeing in a multi-dimensional way

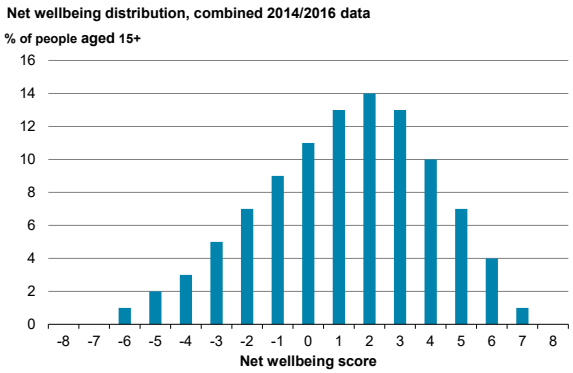
'Multi-dimensional' wellbeing recognises the fact that our experience of all the different domains of wellbeing – eg, health, education, income, family and friends – affect us all the time, and interact constantly. We never experience wellbeing just one domain at a time and often low wellbeing, or 'disadvantage' in one domain can lead to disadvantage in others.

Building on international examples, a series of studies in Aotearoa New Zealand over time has steadily built an understanding of the relationship between the various domains of wellbeing.

One study using the General Social Survey[117] looked at eight domains of wellbeing. It found that nearly two-thirds of people over the age of 15 were experiencing low wellbeing in at least one of the eight domains.[118] However, multiple disadvantage (where a person experiences disadvantage across a number of domains) is less common, with only 9% of people experiencing disadvantage in four or more domains. The study also suggested that people without jobs or with low incomes were more likely to experience low wellbeing in other domains.

A subsequent Treasury paper modified the approach to provide a 'net wellbeing' score, calculated by treating low wellbeing in any given domain as -1, high wellbeing as +1, a middling position as 0, and then summing across these domains.[119] This yielded the distribution depicted in Figure 3.4.

Figure 3.4: Most people are doing well in more areas than they are doing poorly, but some are struggling in several areas



Source: Stats NZ, General Social Survey, analysed in McLeod (2018)

Relationship between wellbeing domains and life satisfaction

A number of studies have found a strong relationship between multiple disadvantage and life satisfaction.[120] The more domains someone experiences disadvantage in the lower their life satisfaction is likely to be. Some combinations of domains are particularly impactful, such as poor health as well as either poor housing or social isolation. For people with these combinations of disadvantage, the effect on their subjective wellbeing was greater than the sum of the parts.[121]

Treasury analysis prepared for Te Tai Waiora provides a further contribution to this literature.[122] The new element it brings to the research is the use of regression tree analysis to identify the factors most strongly related to differences in life satisfaction. These factors are used to split the population into groups or segments, whereby people in the same segment share similar levels of life satisfaction.

The results of one of the trees are presented in Figure 3.5. The tree starts on the left with the total population of people aged 15+ with an average life satisfaction of 7.7 out of 10. The variable that best explains variation in life satisfaction across the whole population is mental wellbeing,[123] which is the first 'splitting' variable. People with very low mental wellbeing have an average life satisfaction of 5.6, and those with low mental wellbeing have an average life satisfaction of 7.1.

The variable that best explains variation within the 'low mental wellbeing' group is whether they have enough income,[124] which is the second splitting variable for this branch. These branches are further split by relationship status for those with not enough or only just enough income and trust in institutions for those with enough or more than enough income. The overall result of this approach is 13 groups with different combinations of life circumstances that help explain their life satisfaction.

117 SUPERU, 2017.
118 Income, material wellbeing, employment, education, health, housing, safety and connectedness.
119 McLeod, 2018.
120 There are a number of economists, such as Richard Layard, John Helliwell and Daniel Fujiwara, who argue that life satisfaction should be the primary focus of policy, with the other elements of the Living Standards Framework being important to the extent that they improve peoples' subjective wellbeing. The Treasury takes a broader approach to understanding wellbeing in which we see subjective wellbeing as one dimension of wellbeing. However, there is still substantial value in understanding the relationship between life satisfaction and other domains of wellbeing, and it is useful as one perspective into thinking about policy priorities.
121 Smith et al., 2019.
122 The Treasury, 2022d.
123 The variable used is derived from the WHO-5, a screening instrument developed by the World Health Organization. Using five simple questions, the instrument generates a score that predicts clinical diagnosis of conditions such as depression (Topp et al., 2015).
124 This variable is created using the survey question: 'How well does your (you and your partner's combined) total income meet your everyday needs for such things as accommodation, food, clothing and other necessities?'.

The most significant factors are mental health and having enough income to meet every-day needs. For the group with the lowest level of life satisfaction, their low mental wellbeing is enough to explain their low life satisfaction without any other explanatory factors. Figure 3.5 shows that the next most significant factor, for most groups[125], is having enough income. After that, partnership status, trust in institutions, loneliness, problems with neighbourhood crime and material wellbeing explain differences in subjective wellbeing (see Table 3.2).[126]

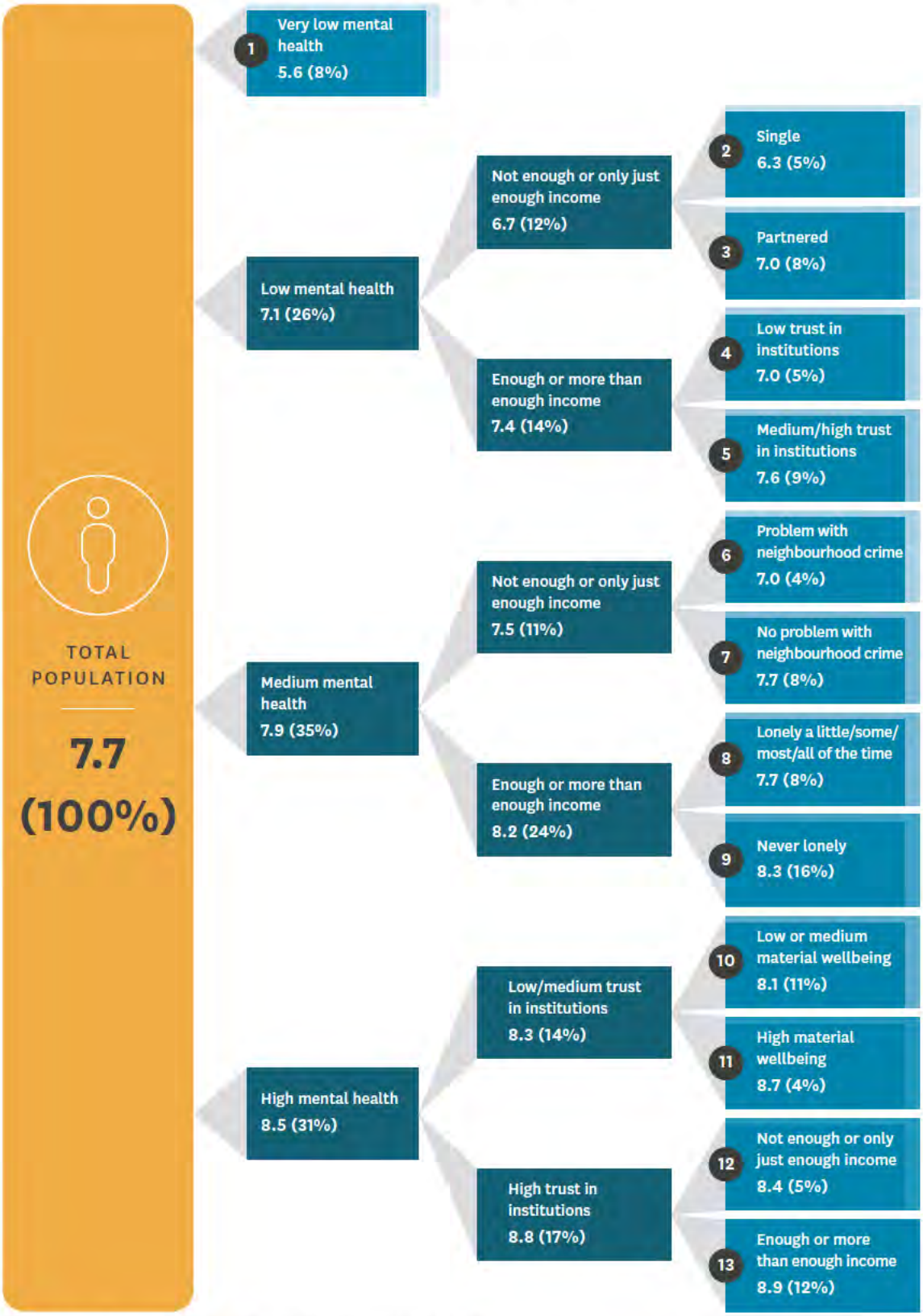
The segmentation analysis helps explain why there are important differences in average wellbeing between different subpopulations. Table 3.2 expands on the information presented in Figure 3.5. It breaks down the 13 different segments as rows and provides additional demographic information about the characteristics of each group. You can see, for example, that members of sole-parent families are heavily represented in segment 2.

125 Trust in institutions is the second most important factor for the group with high mental health.

126 Our findings align with other researchers who have used regression analysis to explore correlations with subjective wellbeing. See, for example, Brown, D., et al., 2012; McLeod, 2018; Brown, S., 2019; Smith, et al., 2019; Carver & Grimes, 2019; and Haines, & Grimes, 2021.

Figure 3.5: Mental health and incomes are important reasons behind differences in life satisfaction [127]

For a demographic break down of each of the 13 final segments, see Table 3.2.



Source: Stats NZ, General Social Survey, analysed in Crichton and Nguyen (2022)

127 Life satisfaction is measured on a 0 to 10 scale. Tracing through each branch of the regression tree identifies 13 segments. For example, segment 1 comprises those with very low mental health (average life satisfaction of 5.6), while segment 13 comprises those who have high mental health, high trust in institutions and enough or more than enough income (average life satisfaction of 8.9).

Table 3.2: Selected demographic characteristics by segment

SEGMENT		AVERAGE LIFE SATISFACTION	TOTAL POPULATION (%)	DISABLED PEOPLE (%)	SOLE PARENT FAMILY (%)	MĀORI (%)	PACIFIC PEOPLES (%)
1	Very low mental health	5.6	8	22	15	13	8
2	Low mental health, not/just enough income, single	6.3	5	15	45	28	13
3	Low mental health, not/just enough income, partnered	7.0	8	10	0	16	16
4	Low mental health, enough income, low trust in institutions	7.0	5	9	6	16	3
5	Low mental health, enough income, medium/high trust in institutions	7.6	9	6	5	8	4
6	Medium mental health, not/just enough income, problem with neighbourhood crime	7.0	4	7	16	20	17
7	Medium mental health, not/just enough income, no problems with neighbour crime	7.7	8	7	13	14	15
8	Medium mental health, not/just enough income, lonely	7.8	8	5	8	13	2
9	Medium mental health, not/just enough income, never lonely	8.3	16	6	5	10	3
10	High mental health, low/medium material wellbeing, low/medium trust in institutions	8.1	11	4	11	14	11
11	High mental health, high material wellbeing, low/medium trust in institutions	8.7	4	3	6	10	1
12	High mental health, not/just enough income, high trust in institutions	8.4	5	4	12	11	21
13	High mental health, enough income, high trust in institutions	8.9	12	4	5	8	5
Overall population		7.7	100	8	10	13	8

Source: General Social Survey, analysed in Crichton and Nguyen, 2022

It also illustrates that for a group such as disabled people, there are individuals in this group in every segment, including the highest wellbeing segments. But, disabled people are disproportionately in the low-wellbeing segments, particularly segment 1.

This analysis does not demonstrate causation but does provide plausible hypotheses for subsequent policy investigation. For example, it may be that addressing the mental health needs of disabled people in segment 1 could lift the life satisfaction of disabled people as a group.

The distribution of wellbeing over time

An important challenge in considering the distribution of wellbeing is the fact that our lives never stand still but are constantly changing. For example, using the segmentation in Figure 3.5 someone might start in segment 2 but then meet a new partner and move into segment 3. If the new partner increases their household income, they might also move into segment 4 or 5.

Ideally we would consider wellbeing over time in this rich multi-dimensional way, but we typically lack the data to do so. One important exception comes from the Growing Up in New Zealand study. This study is researching the experiences of about 6,000 children born in Auckland and parts of Waikato 12 years ago. Another study[128] reported a substantial amount of persistent multiple disadvantage among these children, with 10% of children being disadvantaged in most or all of the waves of the study. Children on this most disadvantaged trajectory had an average household income between $20,000 and $40,000 at all five waves. Most children in disadvantage in the first wave continued to be disadvantaged across time, with only 5% of children moving out of disadvantage over time. A further 8% had a trajectory from average to disadvantaged over time. As the authors put it, their data suggests that "climbing out of disadvantage is harder than falling into it".

The study also illustrates the long-term consequences of low wellbeing experienced early in life. Young children experiencing low wellbeing have been more likely to exhibit behavioural and psychological problems at age eight. This corresponds with evidence from earlier longitudinal studies of children born in Christchurch and Dunedin in the 1970s, who as adults continue to experience the consequences, good or bad, of their childhood experiences.[129] It also corresponds with Treasury research[130] which used administrative data to find that children supported by benefit before age five were more likely to experience a range of adverse outcomes as young adults, with longer time supported by benefit associated with progressively worse outcomes (see Figure 3.6).

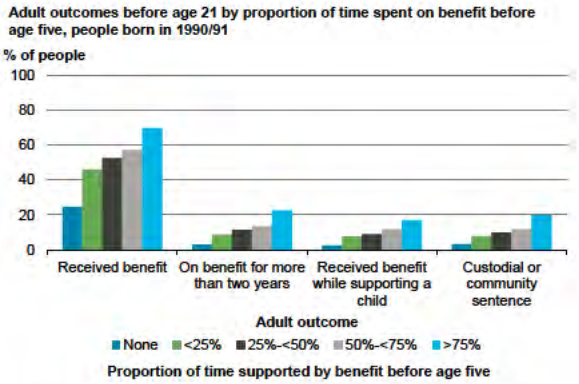
Income mobility over peoples' lives

While research into multidimensional wellbeing over time is still emerging, we know comparatively more about changes in income over time. This provides only a partial picture but given the role that income plays in sustaining material living standards it is still relevant and important for the study of wellbeing.

An important data source for understanding changes in income over time is the Survey of Family, Income and Employment. This survey tracked the same families each year between 2002 and 2009. A key finding from this survey was that, while some poverty is temporary, much is persistent or recurring. For example, of those people in poverty in 2002, 40% were in poverty for five or six of the following six years and 65% were in poverty for three or more of the following six years.[131] This study is now a little dated, but Stats NZ is planning a new survey that will allow these figures to be updated in future.

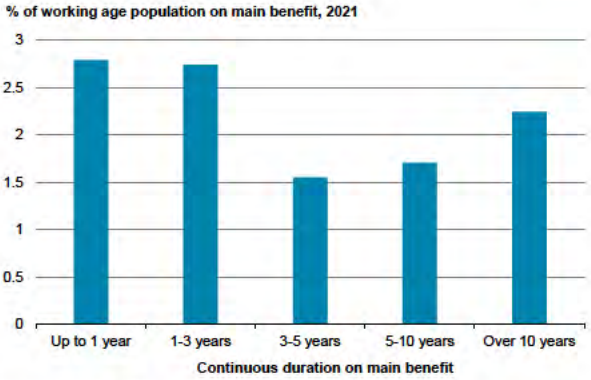
In the meantime, the fact that low income continues to be persistent for many people can be inferred at least in part from administrative data, particularly for beneficiaries. Most beneficiaries have very low incomes, and many beneficiaries have been on benefit for years, particularly those receiving the Supported Living Payment and who are unable to work (see Figure 3.7). Modelling based on the administrative data shows that people on benefit today can expect to spend an average of 12.4 more years on benefit between now and when they turn 65.[132]

Figure 3.6: Long periods supported by benefit as a child lead to worse outcomes as a young adult



Source: Integrated Data Infrastructure, analysed in Crichton et al., 2015

Figure 3.7: Most beneficiaries have been on a benefit for years



Source: Ministry of Social Development, 2021

128 Prickett et al., 2022.
129 For lists of the very many research reports associated with these studies, see https://www.otago.ac.nz/christchurch/research/healthdevelopment/publications/ and https://dunedinstudy.otago.ac.nz/publications
130 Crichton et al., 2015.
131 Carter & Gunasekera, 2012.
132 Ministry of Social Development, 2021.

Intergenerational income mobility

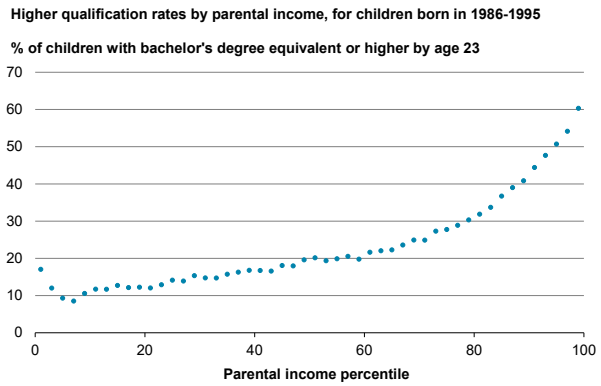
The distribution of income can also echo across the generations. A society that lacks intergenerational mobility is one where children's prospects in life are determined primarily by who their parents are. Estimates of intergenerational mobility help evaluate the extent to which a society is providing equality of opportunity.

The small but growing research base in Aotearoa New Zealand shows that children of rich parents are more likely to become rich when they grow up, and children of poor parents are more likely to become poor when they grow up. Estimates of the strength of that relationship (known as intergenerational income elasticity) vary depending on the data sources and birth cohorts analysed – estimates vary between an elasticity[133] of 0.239 and 0.533.[134] International comparisons are inconclusive, but it appears that our mobility is generally higher than in countries like the USA, but lower than in countries like Denmark.[135]

Education plays an important role in mobility and immobility across the generations, with children of highly educated parents likely to also prosper and the children of beneficiaries being likely to stay on low incomes. Three-quarters of persistence in incomes between generations can be explained by a combination of childhood IQ, childhood behavioural problems, educational achievement and occupation, with IQ and educational achievement being the most important factors.[136]

Treasury analysis showed that tertiary achievement is concentrated among young people raised by the highest-income parents (see Figure 3.8).[137] This partly reflects the flow-on impacts of lower school achievement among children from lower socioeconomic backgrounds. The gap between high and low achievers at school is wide by OECD standards, with more of this gap explained by socioeconomic background than is typical.[138] This suggests that our schooling system is doing less well at counteracting early disadvantage than school systems in many comparable countries.

Figure 3.8: Tertiary achievement is concentrated among the children of high-income parents



Source: Brown, 2022

BOX K: INEQUALITY AND PRODUCTIVITY

The relationship between inequality and productivity is an area of lively theoretical and empirical inquiry by economists. Inequality has a wide range of effects on an economy. In principle, some of these can be expected to stimulate economic productivity, some to suppress it, and others have indeterminate or neutral effects. Put simply, there is no simple theoretical relationship between inequality and economic performance.

For example, inequality produces powerful incentives to strive and succeed or for families to see their children succeed, which can support longer-run economic productivity. Inequality can also boost national savings, as higher-income groups have higher savings rates.

On the other hand, inequality can suppress economic performance if it results in lower income groups lacking the resources to make productivity-enhancing investments in further education. Lower levels of inequality have also been associated with higher levels of social cohesion. Higher social cohesion is linked with higher trust, which in turn reduces the cost of doing business, leading to better economic performance.[139]

The empirical literature is also mixed, with differing conclusions and data, methodological and interpretive challenges, limiting the policy conclusions that can be drawn. A 2016 meta-analysis[140] concluded that inequality has a statistically significant negative impact on growth. However, the authors emphasised that his does not imply a simple causal relationship as it depends on the types and patterns of inequality in different countries.

133 An elasticity of 0 implies no relationship between the incomes of fathers and their sons. Above 0, the higher the elasticity, the more that high-income fathers have high-income sons and low-income fathers have low-income sons.
134 See the background paper to this report, *The distribution of advantage in Aotearoa New Zealand* (The Treasury, 2022e).
135 International comparisons are provided by Gibbons, 2010, Corak, 2013, and Iusitini, 2022.
136 Iusitini, 2022.
137 Brown, S., 2022.
138 OECD, 2019c.
139 Knack & Keefer, 1997.
140 Neves et al., 2016.

Inequality and poverty

Another common way to consider the distribution of wellbeing is by studying the topics of poverty and inequality, particularly inequality of income, consumption and wealth. As this topic has been studied much more extensively over time than has multidimensional wellbeing, it is better understood. Although life is about more than how much we can buy, the study of inequality and poverty continues to be relevant to the study of wellbeing generally, as material standards of living shape the lives we live and the opportunities we can pursue.

Does inequality matter?

The extent to which you are concerned about inequality may depend on the extent to which you ascribe to the different value judgments outlined in Box I. Inequality can also be more or less concerning depending on how it affects other things that people judge to be important. There are benefits from at least some levels and types of inequality, including creating incentives for effort, entrepreneurialism and innovation. There are also some ways in which high levels of inequality could harm other important aspects of society, such as social cohesion and economic productivity. However, the evidence is unclear and contested around these links, and there is a lack of evidence of them having much effect in Aotearoa New Zealand as yet (see Box K on the relationship between inequality and productivity).

Trends in inequality

Inequality can be measured in many ways. This section covers inequality as conventionally measured, with a focus on income and wealth inequality. We note throughout why these conventional figures need to be interpreted with caution.

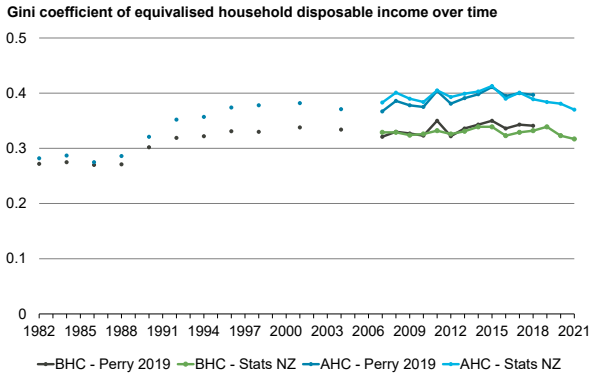
Income inequality

The full distribution of income is commonly summarised using metrics such as the Gini coefficient. The Gini coefficient ranges from 0, indicating perfect equality (where everyone receives an equal share), to 1, perfect inequality (where only one recipient or receives all the income).

Income inequality as measured by the Gini coefficient of annual household disposable income appears to have increased from the 1980s to the 1990s and to have been flat since then (see Figure 3.9), but data limitations make it hard to be sure.[141] Income inequality after accounting for housing costs appears higher, but both have been broadly flat since the late 1990s.

New Zealand is a little above the middle of the 36 OECD countries with data on this topic, with 24 countries having lower inequality as measured this way and 11 having higher inequality.[142] However, these comparisons are subject to uncertainty due to data limitations.

Figure 3.9: Income inequality has been flat since increase in the 1990s, but it is higher after housing costs[143]



Source: Perry, 2019, Stats NZ, Household Income and Household Costs Statistics.

141 Annual equivalised household disposable income is the measure most commonly used to estimate living standards. Equivalisation at the household level accounts for the fact that household members, particularly families, typically pool resources. Disposable income is used to account for direct taxes (like income tax) and transfers (like New Zealand Superannuation). This measure does not account for indirect taxes such as GST, for certain types of income such as capital gains, or for 'social transfers in kind' such as free health and education services. The available research suggests measured inequality would be lower if these factors were accounted for. Inequality would also be lower if measured over the full lifecourse, as some point-in-time inequality merely reflects the fact that people tend to earn more as they get older and gain experience, then start to earn less again as they move into retirement. It is unclear how accounting for these factors would change the observed trend in inequality over time or our position relative to other countries. In addition, methodological changes over time to the underlying surveys require technical adjustment to make comparable series over time. Perry, 2019 constructed a series from 1982-2019, and Stats NZ has constructed a series from 2007-2021 for inequality before housing costs, and 2020-2021 for inequality after housing costs.

142 OECD, 2022.

143 BHC = Before Housing Costs. AHC = After Housing Costs.

Headline income inequality as shown in Figure 3.9 is influenced by many factors, including household and family composition, tax and transfer rates, and housing costs. Among these various factors, the distribution of labour market earnings is one of the most important. Our labour markets do less to create inequality than in most other OECD countries because the gap between low-wage and high-wage employees is smaller. In addition to high employment and a low unemployment rate, earnings inequality among those employed is low by OECD standards. Among full-time employees, those at the 90th percentile earn less than three times as much as employees at the 10th percentile (see Figure 3.10). This ratio is below the OECD median and near the lowest ratio, which in 2020 could be found in Sweden.

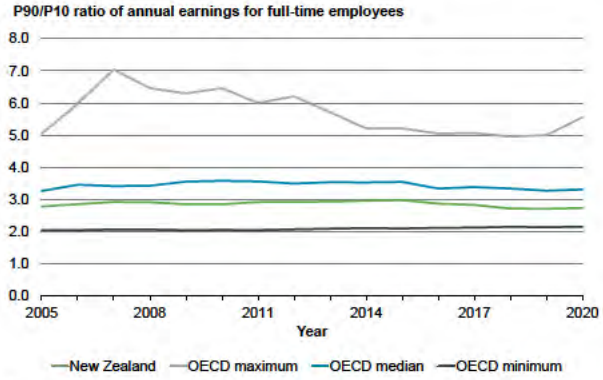
This relativity narrow spread of earnings is in part because the private returns to higher education in Aotearoa New Zealand are lower than in other OECD countries.[144] This counteracts to some extent the intergenerational transmission of advantage and disadvantage via education as described in the previous section.

Wealth inequality

Point-in-time wealth inequality is much higher than income inequality, with more than half of total wealth held by 10% of people, and about half of people having no or very low net wealth (see Figure 3.11). The available data is similar for other countries across the OECD, with our level of wealth inequality appearing to be a little above that of the typical OECD country.[145]

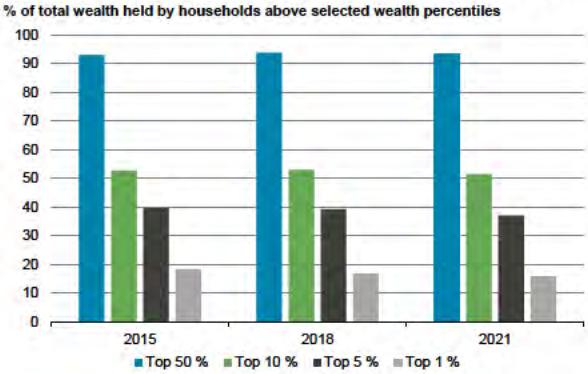
A robust time series of wealth inequality is only available back to 2015, and between then and 2021 the overall distribution of wealth appears largely unchanged.[146] As with income, point-in-time inequality partly reflects lifecycle patterns – older people tend to have more wealth than younger people, on average. But, there is also substantial variation in wealth within each age band, suggesting that lifecycle patterns only explain part of the wide variation in cross-sectional wealth.[147] The gap between young and old also appears to have widened since 2001 (see Figure 3.12).

Figure 3.10: The difference between low and high earnings is lower in Aotearoa New Zealand compared to most OECD countries[148]



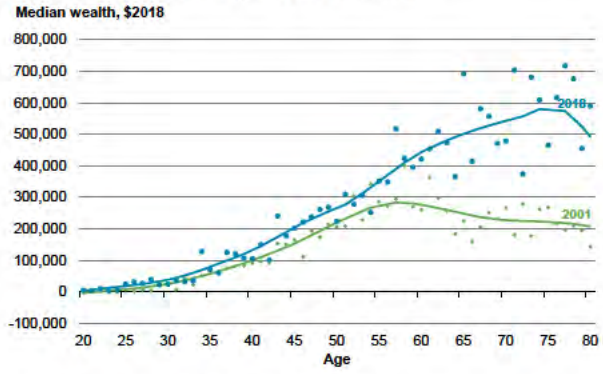
Source: OECD

Figure 3.11: Wealth inequality unchanged overall since 2015



Source: Stats NZ, Household Economic Survey

Figure 3.12: The gap between the wealth of young and old has increased over the past two decades



Source: Treasury analysis of Household Savings Survey and Household Economic Survey

144 Scott, 2020.

145 The data presented here and used for international comparisons is based on surveys of households. These surveys are known to underestimate the amount of wealth held by the richest individuals. As a result, the level of wealth inequality is likely higher than shown for Aotearoa New Zealand, and is likely higher in other countries too. The degree of underestimation could be different in each country, so it is hard to be confident about our exact position relative to other countries.

146 Wealth estimates are available from earlier surveys, including the 2001 Household Savings Survey and the 2002-2009 Survey of Family Income and Employment. However, these are not comparable with the 2015-2021 Household Economic Survey without an extensive reweighting exercise. This exercise was undertaken by the Treasury to produce Figure 3.12, but extensions of this work to look a wider change in the wealth distribution have not been undertaken.

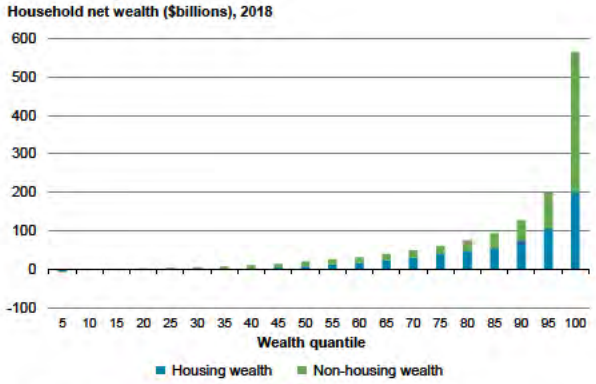
147 Tax Working Group Secretariat, 2018.

148 The P90/P10 ratio is a number generated by dividing the earnings of the person who earns more than 90% of people by the earnings of the person who earns more than 10% of people. The higher the ratio, the bigger the gap between the top and bottom of the distribution.

The wealth gap between young and old has widened at least partly because of changes in our housing markets. Since 1980, house prices have grown faster than in any other OECD country. Work by the Housing Technical Working Group (2022)[149] concluded that much of this increase reflects the interaction between low interest rates, tax policy and restrictions on the supply of land for urban use.

The gap in wealth between homeowners and non-homeowners widens when house prices increase.[150] However, a large number of middle-wealth households own their home, which means that house price increases can move that middle-wealth cohort closer to the top. In comparison to those in the middle, the wealthiest people own more non-housing assets – most non-housing assets such as shares are owned by the wealthiest 5-10% of households (see Figure 3.13). This means that, paradoxically, house price increases can reduce the Gini inequality score.

Figure 3.13: Wealth is concentrated at the top, especially non-housing wealth



Source: Symes, 2021

In the same way that a lack of competition for urban land creates what economists describe as 'economic rents' that benefit some but not others, a lack of competition in other markets can lead to profits or wages being higher than they otherwise would be. There are substantial measurement challenges in assessing competition and economic rents. But emerging evidence suggests that in some markets such as for finance and insurance, there may be low competition[151] and a growing level of 'economic rents'.[152] This developing literature will help us better understand the sources of inequality in wealth in the future and help inform value judgements about the extent to which inequality in wealth is of concern.

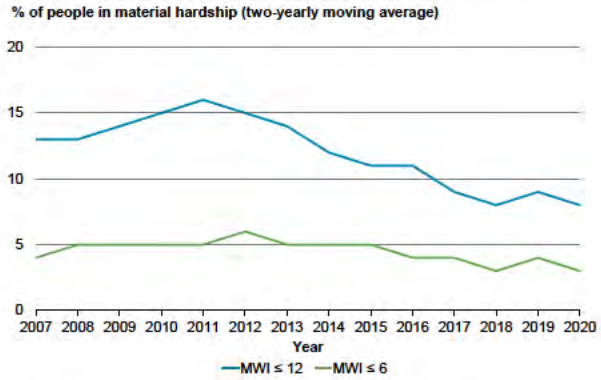
Material hardship and income poverty

The topic of inequality covers the full distribution of people from the very poorest to the very richest. From various ethical perspectives such as 'sufficientarianism', it is also important to consider the bottom of the distribution to make sure that all people have 'enough' to enjoy at least a minimally acceptable quality of life.

Material disadvantage, or poverty, is typically measured in two different ways, broadly relating to a lack of basic commodities such as food, clothing and shelter (material hardship), or where household income is below some threshold of minimum acceptability (low income or income poverty). People may disagree on where the threshold for income poverty or material hardship should be, so generally statisticians track trends in multiple thresholds.

The proportion of people in material hardship has been declining since 2012, as measured by the Material Wellbeing Index (MWI). The MWI tracks the number of households who can afford a certain number of pre-defined items. It is made up of 24 items, including the basics such as food and clothes, and some non-essentials that are commonly aspired to. Figure 3.14 shows that there has been a decline in the number of households who have fewer than 12 of the 24 items and also in the number who have fewer than six of the 24 items.

Figure 3.14: Material hardship rates have more than halved in a decade

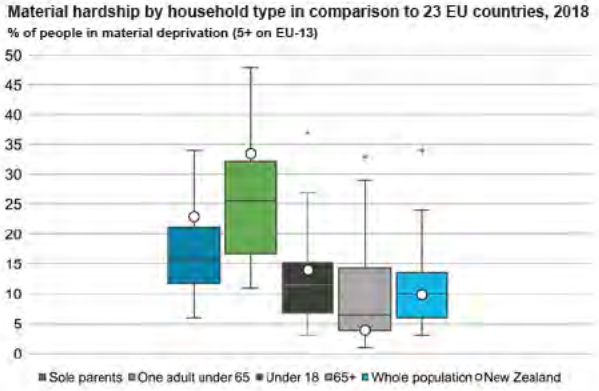


Source: Ministry of Social Development analysis of Household Economic Survey

However, rates of material hardship differ significantly across household types, with particularly high rates for sole parent households (see Figure 3.15). Our overall rate of hardship is quite similar to that in European countries, but the pattern is distinctive. Our hardship rates among those over 65 are quite low, while those among under-18s and people under the age of 65 living alone are both quite high. This partly reflects the relative levels of New Zealand Superannuation to support provided to younger people, such as the Family Tax Credit. As shown earlier, material hardship is also higher among some groups of children, including children with disabilities, and children in households with someone who is disabled.

149 A collaboration between the Ministry for Housing and Urban Development, the Reserve Bank of New Zealand, and Treasury.
150 Symes, 2021.
151 Schiff and Singh, 2019.
152 Allan and Maré, 2022; Bertram and Rosenberg, 2022.

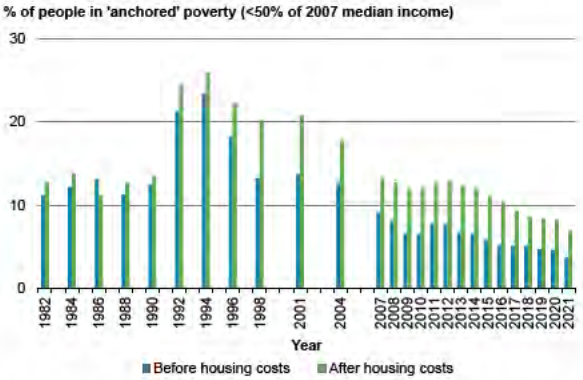
Figure 3.15: Material hardship is comparable to Europe overall, but low for over-65s and high for under-18s and sole parents



Source: Stats NZ, Household Economic Survey and EU Survey of Income and Living Conditions, analysed in Perry, 2021b

Several measures of income poverty have also declined over time. Figure 3.16 shows a decline in rates of income poverty using a threshold anchored to the 2007 median income, both before and after housing costs. 'Moving line' measures have been flatter as improving economic conditions in recent years have lifted the median income and the moving line threshold with it. Poverty trends for children are similar, with rates decreasing on most measures (see Box L).

Figure 3.16: Poverty is steadily declining on one measure, but is still higher after housing costs



Source: Ministry of Social Development analysis of Household Economic Survey

However, Figure 3.16 also highlights that poverty rates are higher after housing costs and that the gap with poverty before housing costs is higher than it was 30 years ago. This pattern highlights the role of housing costs as a source of disadvantage for people with the lowest incomes, which was also identified in Chapter 2.

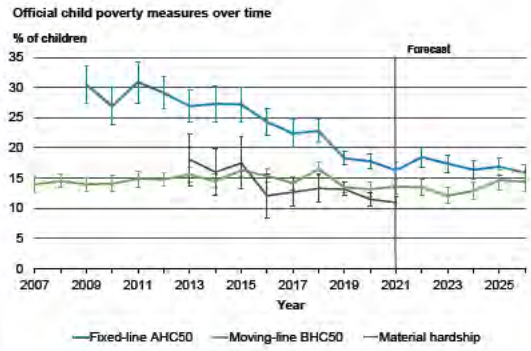
BOX L: CHILD POVERTY

Figure L.1 shows recent trends in the three measures of child poverty in the Child Poverty Reduction Act 2018: the fixed-line AHC50 measure compares income *after* paying for housing with a typical household in 2018, the moving-line BHC50 measure compares income *before* accounting for housing costs with a typical household in the same year and the material hardship measure shows us if children have access to essentials such as nutritious food and medical services. All three measures have been declining in recent years, but trends in the fixed-line and moving-line poverty measures may diverge in future years, as median incomes are expected to grow faster than low incomes.[153]

Child poverty and material hardship rates continued to fall over the pandemic period, although Māori and Pacific children continue to experience much higher levels of material hardship.[154]

These recent declines are likely to reflect increases in income at the bottom of the distribution relative to the middle. We have also seen much higher growth in the incomes of both working and beneficiary households with children in recent years, compared to households without children, perhaps reflecting changes in Working for Families.

Figure L.1: Child poverty declining on most measures but likely to flatten out



Source: The Treasury

153 Stephens, 2022.

154 Māori children are more than twice as likely as European children to be living in material hardship, and Pacific children are around three times more likely than European children to be living in material hardship.

Dynamic relationship between hardship, poverty and wealth

Recent work by the Treasury has aimed to explore the relationship between poverty, hardship and wealth in more detail. Graphic 3.1 illustrates the point-in-time relationship between the three official measures of child poverty.[155] It shows that child poverty looks quite different depending on which measure or combination of measures one wishes to focus on.

One key finding is that housing costs appear to expand the number of children in income poverty, as well as nearly doubling the number of children in both income poverty and material hardship.

Another key finding is that only about half of children in material hardship are in income poverty according to the 50% thresholds. This suggests that high costs may be creating hardship for many families that are above the customary poverty thresholds.

A third key feature is that over half of children in income poverty are not experiencing material hardship. Many of these children's families are likely to have cash savings. Cash savings are an important protective factor against material hardship even for households with the lowest incomes.[156]

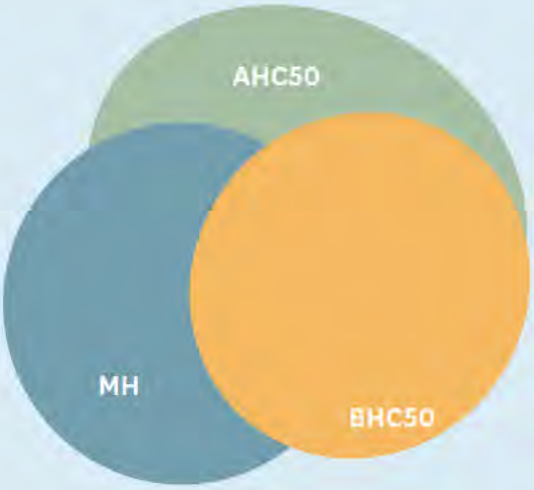
Graphic 3.1: Only some children are in multiple types of poverty at once[157]

3%

(31K) of children were in poverty based on all three measures

12%

(134K) were in material hardship (MH), half of these did not fall below the income thresholds



16%

(186K) of children were in fixed AHC50 poverty, half of them were already in BHC poverty but the other half appeared to be pushed into poverty by their housing costs

10%

(113K) of children were in relative BHC50 poverty, the majority (85%) of these were also in either AHC poverty or material hardship

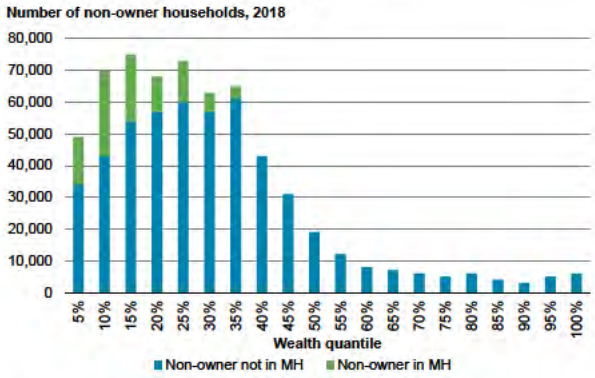
Source: Stephens, 2022

155 Stephens, 2022.
156 Perry, 2021a.
157 This graph shows the three official child poverty measures: material hardship (MH), before housing cost poverty using the 50% moving line threshold before housing costs (BHC50), and income poverty using the 50% fixed line threshold after housing costs (AHC50). These results use tax year modelling, so numbers are not entirely consistent with official Stats NZ measures, although the relationship between the different measures is very similar.

Another important factor protecting against material hardship is home ownership (see Figures 3.17 and 3.18). Only about 1% of people who own their own home experience material hardship, even for those with very low equity in the house.[158] Rates of material hardship are much higher for those who do not own their own house, even if other sources of wealth place them closer to the middle of the wealth distribution. This work suggests that in the long run, declines in rates of home ownership could lead an increasing number of households vulnerable to hardship in the face of challenging economic conditions.

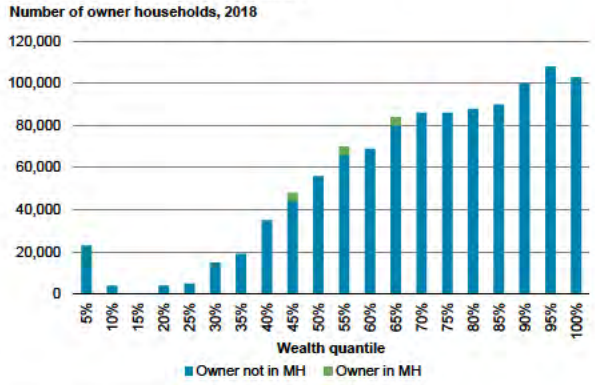
An important piece of context for the figures presented in this section that show declining rates of hardship and poverty is that these declines have occurred in a macroeconomic context of strong growth and low unemployment. In comparison to many other countries, we have also seen growth benefit those across the distribution rather than 'hollowing out' the economy as seen in countries like the USA.[159] On the one hand, this illustrates that prudent macroeconomic management creates substantial wellbeing benefits for all. On the other, it also suggests that should macroeconomic conditions turn less favourable there is potential for some encouraging trends to reverse.

Figure 3.17: Non-homeowners with low wealth are vulnerable to material hardship



Source: Symes, 2021

Figure 3.18: Homeowners are very unlikely to experience hardship, regardless of wealth



Source: Symes, 2021

158 Symes, 2021.
159 OECD, 2019d, Perry, 2019.

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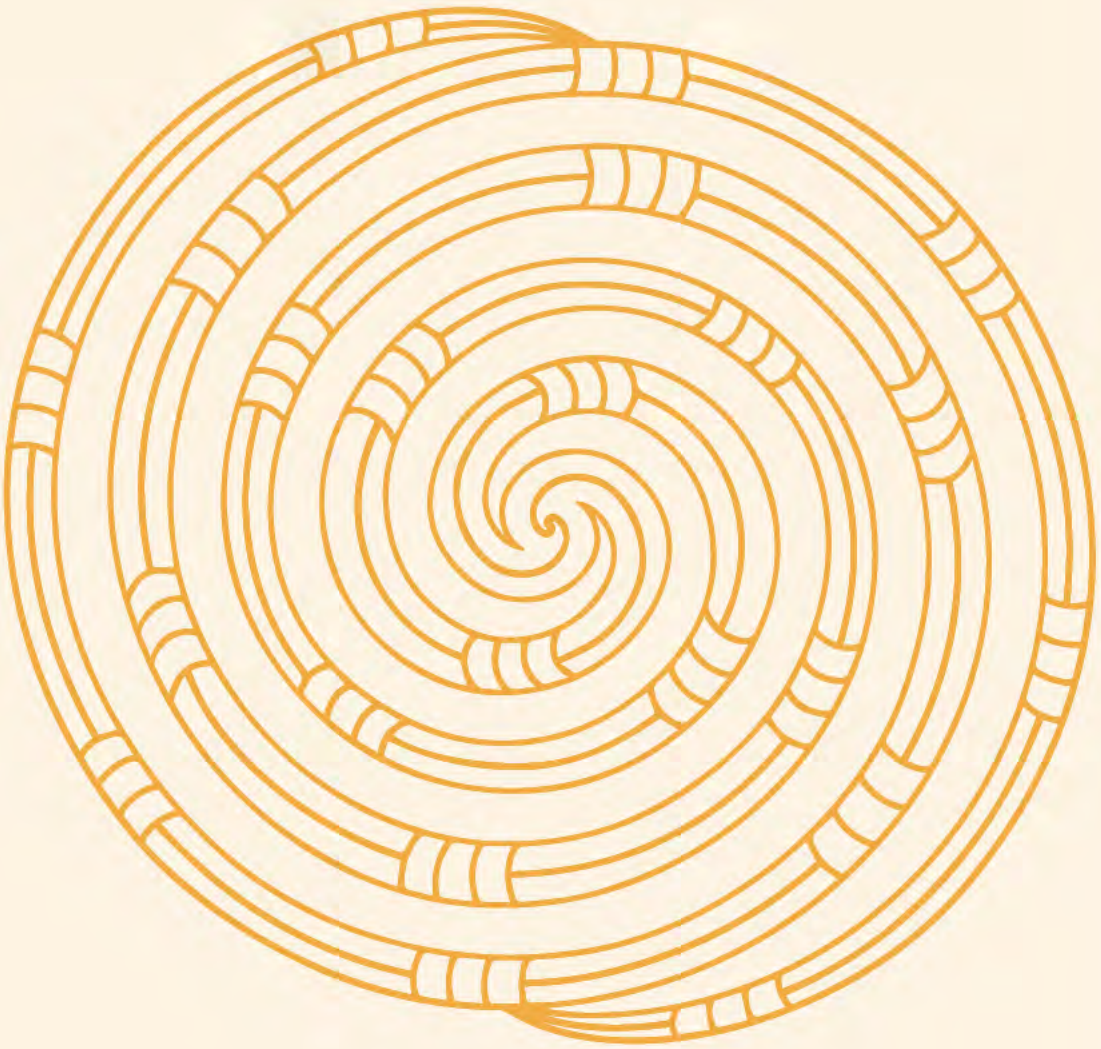
4

Trends in Māori wellbeing



CHAPTER 4: TRENDS IN MĀORI WELLBEING

This chapter considers the wellbeing of Māori from te ao Māori perspective. It uses He Ara Waiora to interpret the available data and complements this quantitative analysis with qualitative insights from interview participants.

Key messages

- He Ara Waiora emphasises that **the human realm (Te Ira Tangata) and the wellbeing of the environment (Te Taiao) are intertwined.** This perspective prioritises careful stewardship (tiakitanga) of natural resources to balance relationships with the natural world and ensure abundance for future generations. Māori ways of life will be impacted by global environmental issues such as climate change and biodiversity loss, which pose a threat to cultural identities and practices.
- **Māori experience high levels of cultural belonging, collective identity, and communal sharing and giving**, and there is some evidence of a revitalisation of te reo Māori. Participation in Māori culture helps sustain it for the benefit of future generations of Māori, safeguarding their capability to achieve wellbeing as Māori.
- **There are some persistent and growing challenges to the wellbeing of Māori.** There are differences between the experience and outcomes of Māori and non-Māori across a range of wellbeing domains, such as income, material hardship, health, and housing. Although some Māori outcomes are gradually improving over time, the gaps are closing slowly at best.
- **High and increasing rates of psychological distress and discrimination are among the most concerning indicators of Māori wellbeing**, as are low levels of trust in key government institutions.
- **There are also several positive trends for Māori**. Māori are gaining qualifications at a faster rate than other ethnicities, and there are a growing proportion of Māori in higher-skilled employment. There are also fewer whānau and children in hardship than in the past.
- **The Māori economy has been growing faster than the wider economy** and now represents 6.8% of national GDP in 2018. Māori business is innovative, often endeavours to incorporate Māori values and has the potential to support wellbeing outcomes in a culturally grounded way.

Overview

This chapter uses He Ara Waiora to explore current and emerging trends in Māori wellbeing.[160] He Ara Waiora is grounded in mātauranga Māori and helps us to understand ***waiora***, a term that can be loosely translated as 'wellbeing' but that has no direct equivalent in English.

He Ara Waiora helps to interpret what data trends mean when viewed from a Māori perspective but should not be taken as ***the*** definitive Māori perspective. Concepts of wellbeing for Māori are diverse and can vary along iwi, hapū, whānau and individual lines. Broadly, these are likely to be consistent with many aspects of He Ara Waiora, although areas of emphasis and terminology will differ.[161]

Many of the concepts in He Ara Waiora align with values held by non-Māori people in Aotearoa New Zealand. The concept of manaakitanga, for example, resonates as an ethic of reciprocal care. Accordingly, there are areas of overlap between He Ara Waiora and the Living Standards Framework (see Box M). Both frameworks are helpful in identifying dimensions of wellbeing that are relevant for everyone, including Māori.

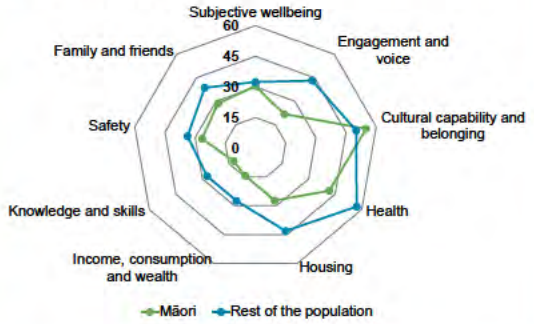
160 See the background paper to this report, *Trends in Māori Wellbeing* (Reid & Evans, 2022).
161 Over the years, a number of approaches and frameworks have been developed to better understand waiora (see Durie, 1998, for a review of these approaches). Mason Durie's conceptual model of *Te Whare Tapa Whā* features prominently as a holistic wellbeing model that has been incorporated into many policy frameworks. It was also influential upon the developers of He Ara Waiora.

BOX M: MĀORI WELLBEING UNDER THE LIVING STANDARDS FRAMEWORK[162]

At a glance, Māori are less likely to have wellbeing outcomes on par with the rest of the population. There are differences in their experience across engagement and voice, education, health, and housing.

Māori experience greater wellbeing in cultural capability and belonging compared to the rest of the population.

Figure M.1: Māori wellbeing across the LSF domains (% reported high wellbeing, General Social Survey 2018) (LSF Dashboard indicator)



This chapter draws on both quantitative and qualitative evidence. While there are currently no direct indicators and measures for the principles in He Ara Waiora, the indicator set used in this paper to explore trends in wellbeing is derived from McMeeking et al. (2019), which identified existing data sets that could serve as proxy indicators for Te Taiao and Te Ira Tangata.[163]

There are some data limitations to acknowledge when considering quantitative evidence on Māori wellbeing. For example, Māori are a youthful population which can result in lower wellbeing trends if not accounted for, as younger people fare less well on many metrics than older people. Additionally, most indicators and data focus on individuals, and are limited in what they can say about collective and whānau wellbeing. In some cases, technical issues such as time series inconsistencies and limited ethnicity breakdowns make tailoring the analysis to Māori challenging. As a result, many Māori informational needs are still largely unmet. We have endeavoured to consider these issues throughout this chapter.

Wairua is at the centre of He Ara Waiora and Waiora forms the outer sphere. Neither are measured directly. However, the interplay within and between Te Taiao and Te Ira Tangata impacts both Wairua and Waiora. Those impacts are difficult to capture authentically through indicators and measures at this point and for that reason are not part of the analysis.

162 We use the Living Standards Framework for this chart due to the indicator set for He Ara Waiora being unavailable at the time of writing.
163 See the background paper to this report, *Trends in Māori Wellbeing* (Reid & Evans, 2022).

Te Taiao – the natural world

Te Taiao has been defined as 'the natural world', but this implies a degree of separation from human constructs when in fact close ties to the natural world are expressed though whakapapa relationships that connect humans and the environment in a dynamic system:

> *"... a wetland is not just a swamp or a wasteland, it's actually an ecosystem that has this incredible function and process. So, when you think about land use, for example, you don't just think about that in isolation and how it can give you an economic return. You're thinking about how does it protect coastal erosion? What other purposes does it serve in terms of the ecosystem? There are rongoā[164] associated with wetlands, so you look at how that fits into the broader community economy."* – Tia Greenaway, Climate Change Commission.

One unique example of this intertwinement was the legal recognition of the Whanganui River, Te Awa Tupua as possessing 'all the rights, powers, duties, and liabilities' of a legal person in 2017. This speaks to the relationship of interconnection and reflects te ao Māori acknowledgement that a body of water or waterways have needs that should be respected and protected.[165]

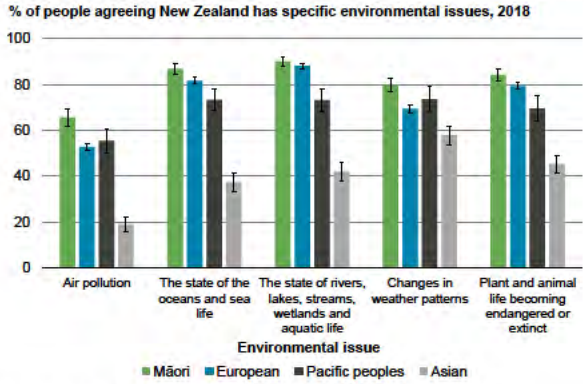
Based on the evidence, we can draw some conclusions on the current health of Te Taiao in order to discuss the potential impacts on Māori and their ability to achieve waiora in the future.

Cultural impacts of environmental change

Māori, more than other ethnic groups, consider Aotearoa New Zealand to have environmental problems such as air pollution, water quality, and loss of biodiversity, among others (see Figure 4.1). More Māori (92%) rate the health of Te Taiao as quite important or very important than other ethnic groups.[166] This means that climate change and other negative environmental trends are likely to have an impact on the wairua associated with places, people and communities.

Climate change and environmental degradation (see Chapter 5) have particular significance for Māori, as they carry both physical and cultural consequences. For example, Māori communities are concerned about the severance of connections that people have with each other and with their ancestral land, and an erosion of the way that kinship is maintained. In turn, this reduces the ability to exercise tikanga and pass on mātauranga.[167]

Figure 4.1: Among ethnic groups, Māori are most concerned about the state of our environment



Source: Stats NZ, General Social Survey

Other cultural and community risks include the loss of the reliability of tohu (environmental indicators) for planting and gathering kai, the loss of taonga (treasured) species, and impacts on the ability of Māori to fulfil tiakitanga – a culturally significant stewardship role for the environment.[168] One concerning piece of evidence relates to biodiversity, one of the main health indicators for ecosystems, which shows that 77.2% of indigenous species are classified as threatened or at risk of extinction.[169]

From an economic perspective, climate impacts on the primary sector are particularly relevant for the Māori economy because of its heavy investment in natural resources. For example, Māori interests own or control 50% of fishing quotas, and own or control 50% of exotic forests.[170]

Towards sustainable resource use – learning from kaitiaki

Healthy natural resources are necessary for food and resource production. Mātauranga Māori provides many lessons on how to support the ongoing sufficiency, and ideally abundance, of resources to maintain community wellbeing. Māori have developed ways to enforce restrictions or protections on how humans interact with the environment, including rāhui and tapu.[171] Rāhui is a form of tapu – a restriction of the use of natural resources that might compromise the wellbeing of Te Taiao. This highlights the value of mātauranga Māori as a way to monitor the health of Te Taiao and to improve outcomes.

> *"... mātauranga is extremely useful for environmental matters. I just read an article about weaving mats to kill weeds in the lakes in Rotorua by placing those mats on the lakebed to discourage the weeds."* – Liz Mellish, Palmerston North Māori Reserve Trust.

164 *Rongoā Māori* is traditional Māori healing that encompasses herbal remedies, physical therapies and spiritual healing.
165 Ministry for the Environment, 2020.
166 Te Puni Kōkiri, 2022.
167 Dick et al., 2012.
168 Ministry for the Environment, 2021.
169 Ministry for the Environment and Stats NZ, 2019.
170 The Treasury, 2021.
171 Pauling and Ataria, 2010.

Te Ira Tangata – the human realm

Te Ira Tangata refers to the domain of human activities and experiences. This report draws on indicators in relation to four interconnected elements of mana:

- Mana Tuku Iho, which encompasses both a sense of identity and belonging to a community.
- Mana Āheinga, which refers to individuals, whānau and communities having the capability to achieve aspirations that they have identified for themselves. This requires the necessary resources and skills, the building blocks of which include good health and education.
- Mana Tauutuutu, which relates to the rights and responsibilities of individuals and collectives to each other, communities, and places. This links to ideas of social cohesion, as articulated in the Living Standards Framework.
- Mana Whanake, which relates to people having the skills and resources to generate sustainable and intergenerational prosperity.

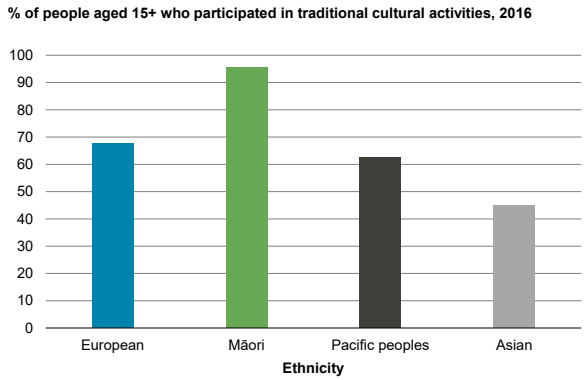
The following section is thematic rather than segmented according to each aspect of mana, as a single indicator can be relevant to all four.

Indigenous identity and belonging

Māori report a strong sense of identity and belonging stemming from indigeneity. Increasingly, Māori culture has been reflected in public spaces, reflecting increasing recognition of Treaty partnerships. This also reflects the strength of cultural connections enabled by marae, iwi, and many other Māori institutions.

In 2016, Māori showed the highest level of engagement in cultural activities (see Figure 4.2). Strong cultural ties can translate into experiences of identity linked to cultural values and serve as an essential aspect of intergenerational wellbeing.[172] As well as 'activities', culture is also expressed through everyday norms and behaviours, which are not so easily captured by the data.

Figure 4.2: Māori most engaged in traditional cultural activities



Source: Stats NZ, General Social Survey

Marae are key cultural institutions that function as bonding points for people and communities. For many Māori, connecting to where they come from via their marae tipuna (ancestral marae) and the surrounding environment is important to their wellbeing. In 2018, Māori living in rural areas were more likely to have been to their ancestral marae (if known) in the previous 12 months (53%), compared to Māori living in urban areas (42%). A higher proportion (66%) of urban Māori who knew their ancestral marae said they would like to have visited more often.[173]

These cultural connections have been shown to enable strong collective action by and for Māori communities, as demonstrated by the COVID-19 response.[174]

172 Dalziel et al., 2019.
173 Stats NZ, 2020a.
174 Cook et al., 2020.

Te reo Māori revitilisation

The importance of language as an indicator of identity is encapsulated in the words of Sir James Henare in 1988: *"ko te reo te mauri o te mana Māori" (the language is the life force of Māori mana).*

Te reo Māori is a language rich with imagery, metaphors, and embedded knowledge. Some knowledge cannot be passed on in English in a way that encompasses the full complexity of mātauranga Māori. There are also intergenerational implications, particularly where younger generations with English as a dominant language are limited in their ability to communicate with kaumātua and kuia who use te reo Māori as a first language. In other cases, tamariki in Māori-medium schooling may be more fluent than their parents. Māori-led initiatives such as the kōhanga reo movement, have given momentum towards the revitalisation of te reo Māori.[175]

Although the overall number of Māori conversational te reo speakers has increased between 2001 and 2018, the percentage of Māori who speak te reo conversationally has declined slightly as the population has grown (see Figure 4.3).[176] In the 2018 census, around 21% of Māori could have a conversation in te reo Māori about a lot of everyday things.[177]

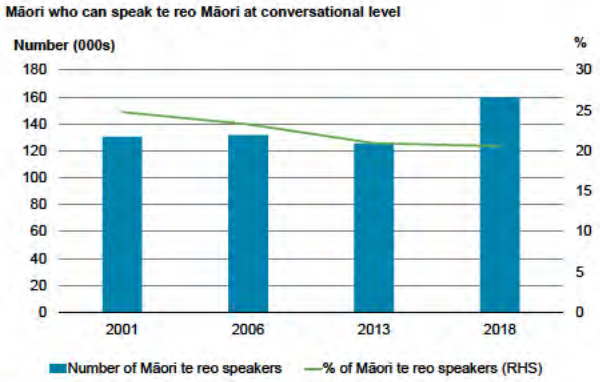
The latest data from the General Social Survey suggests a resurgence of interest and support for te reo Māori and some improvement in the speaking abilities of the combined Māori and non-Māori population. Since 2018, the proportion of people (of any ethnicity) able to speak more than a few words or phrases of te reo Māori increased from around 24% to 30% in 2021.[178] It is important to note that this is a lower proficiency level than is measured in the census, which measures the ability to have everyday conversations.

Loneliness and psychological distress

Human connection is vital to all aspects of Te Ira Tangata domain of He Ara Waiora. In 2021, Māori reported the highest rates of loneliness compared to other ethnic groups (see Figure 4.4). This could be partly due to the younger age structure of Māori, as loneliness was more prevalent among young people over the COVID-19 lockdowns. Loneliness is also linked with feelings of victimisation, bullying and discrimination.

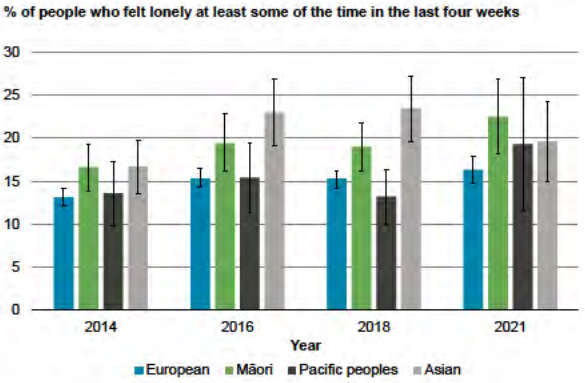
There is a general trend of increasing psychological distress among all ethnic groups since 2011/12, as discussed in Chapter 2. However, psychological distress is highest for Māori and the ethnic gap is increasing over time from a three percentage point difference in 2011/12 to a seven percentage point difference in 2020/21 (see Figure 4.5). Māori were 1.6 times more likely to experience psychological distress than non-Māori in 2020/21. The ratio between wāhine Māori to non-Māori women was 1.7.[179] The history surrounding Māori identity could also play a factor, including the legacy of historical dispossession and the systematic breaking down of Māori social structures.[180]

Figure 4.3: The number of Māori that speak te reo is growing, but not as fast as the Māori population, leading to falling rates of fluency[181]



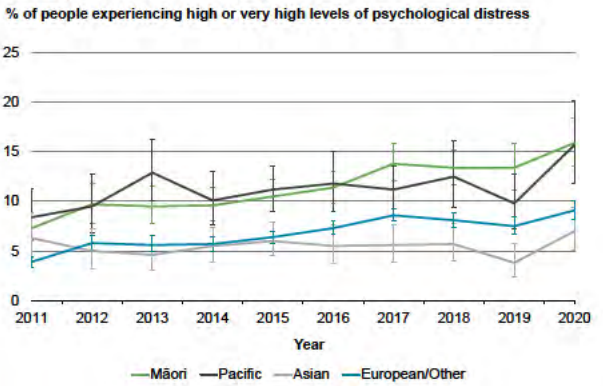
Source: Stats NZ, Census

Figure 4.4: Loneliness among Māori is more common than among Europeans



Source: Stats NZ, General Social Survey

Figure 4.5: Psychological distress is most common among Māori (and Pacific peoples)



Source: Ministry of Health, New Zealand Health Survey

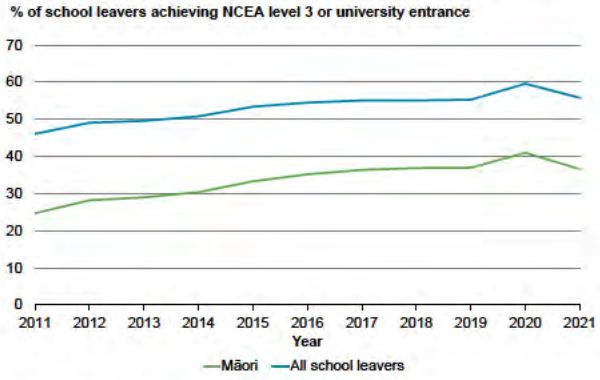
175 Stats NZ, 2020c.
176 Te Puni Kōkiri, 2022.
177 Stats NZ, 2020d.
178 Stats NZ, 2022a.
179 Te Puni Kōkiri, 2022.
180 See Thomas and Nikora, 1996, for a review.
181 There are multiple identification variables for Māori in the census that have different applications, which include ethnicity and descent variables. Ethnicity refers to a self-identified cultural affiliation, whereas descent implies a biological connection. Our identification variable for this, and other graphs in this chapter, is based on ethnicity. More information on identification variables and their applications can be found at Māori descent (information about this variable and its quality) – Stats NZ DataInfo+ and Ethnicity (information about this variable and its quality) – Stats NZ DataInfo+

Increasing educational attainment – but gaps remain

Mana Āheinga reflects peoples' aspirations and the ability to realise them. One important aspect of human capability is the acquisition of knowledge and skills. Chapter 2 highlighted that educational achievement has been declining in recent years in reading science and maths.[182] This downwards trend can be seen among all major ethnic groups.

However, we do see some increases in educational attainment if we look at NCEA results, which have a broader curriculum. Māori NCEA level 3 achievement rates have been growing steadily between 2010 and 2020, increasing by 19% for Māori, compared to 12% for non-Māori over that period.[183] However, there is still a 19 percentage point gap when compared to non-Māori achievement rates in 2020 (see Figure 4.6).[184]

Figure 4.6: More Māori are achieving NCEA level 3 over the past decade, but the gap with other ethnicities remains



Source: Ministry of Education, Education Counts

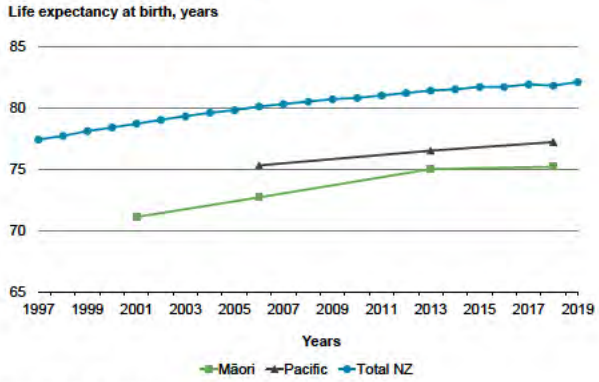
Improving life expectancy – but gaps remain

Another important aspect of human capability is health. Māori views on health take a holistic approach where physical health represents just one aspect of health and cannot be separated from wairua, whānau and mental health dimensions.[185]

Life expectancy at birth is a headline health indicator that is driven by a number of wellbeing factors, including living standards, infant mortality and communicable diseases, lifestyle and education, as well as access to quality health services.[186]

Life expectancy has been increasing over time in Aotearoa New Zealand, although Māori have a lower life expectancy than the rest of the population (see Figure 4.7). The latest data shows that Māori males are expected to live for 73.4 years, compared to 80.9 years for non-Māori males, and Māori females live 77.1 years, compared to 84.4 years for non-Māori females.[187] This gap in life expectancy has decreased slightly over time, but means that Māori live six to seven years less on average than the rest of the population.

Figure 4.7: Life expectancy is lower for Māori (LSF Dashboard indicator)



Source: OECD, Health Statistics

The underlying factors contributing to lower Māori life expectancy and health inequities are complex. Many of the drivers are related to the unequal distribution and access to resources such as income, education and employment – factors that often compound one another.[188]

These factors also expose Māori to other risk factors, such as tobacco and alcohol use. The prevalence of smoking has decreased slowly over time for both Māori and non-Māori but rates have declined more slowly for Māori. From 2006/07 to 2016/17, rates of smoking for Māori decreased by 17%, compared to 25% for non-Māori.[189]

Between 2015 and 2020, the rates of hazardous drinking for Māori have also been consistently higher than for non-Māori, with over 30% of Māori drinking hazardously compared to 20% of non-Māori.[190] Excessive alcohol consumption is linked with higher rates of psychological distress[191] and has flow-on impacts in each of the four aspects of mana in He Ara Waiora.

182 As measured by the OECD Programme for International Student Assessment (PISA).
183 Te Puni Kōkiri, 2022.
184 NCEA achievement rates should be interpreted in light of learning recognition credits (LRCs) which were introduced in 2020 to counter COVID-19 disruptions by awarding bonus credits to students earning credits through assessment (NZQA, 2021). LRCs appear to have improved NCEA results. However it is unlikely that they have been able to negate disruption to the actual acquisition of knowledge and skills through COVID-19.
185 As set out in Mason Durie's 1985 *Te Whare Tapa Whā*. See Te Whare Tapa Whā | Mental Health Foundation
186 OECD, 2021b.
187 OECD, 2021b.
188 Walsh & Grey, 2019.
189 Ministry of Health, 2019.
190 Te Puni Kōkiri, 2022.
191 Brown, L. & Bailey, 2021.

Māori have lower general life satisfaction

Overall satisfaction with life is one way to gauge how Māori are feeling across a number of other wellbeing measures that relate to their ability to achieve a good life. It could be considered a proxy measure that is influenced by the four aspects of mana that flow from the Wairua domain at the centre of He Ara Waiora. In 2021, Māori on average reported slightly lower average life satisfaction rates (7.3 on a 0-10 scale) than the total population (7.7 – see Figure 4.8). Data on how people rate their family wellbeing (as opposed to individual wellbeing) follows a similar trend. Treasury analysis shows that Māori were over-represented in lower overall life satisfaction outcomes.[192]

However, the latest data indicates that Māori rate their expectation of overall life satisfaction in five years' time slightly higher than the average population (8.4 versus 8.2), suggesting that many Māori are more optimistic about their future circumstances.[193]

Māori report high levels of discrimination and low trust in institutions

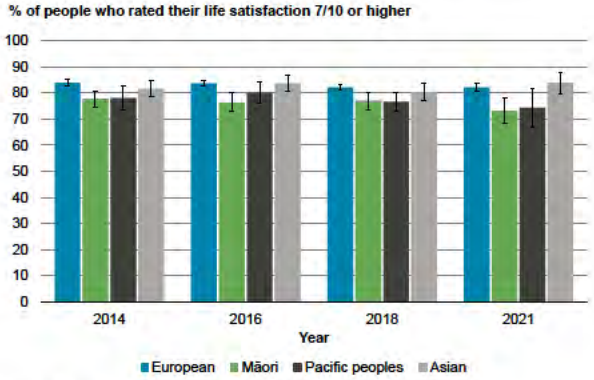
Mana Tauutuutu is found in knowing and fulfilling one's rights and responsibilities to the community and in the connectedness of an individual to their community. Feelings of discrimination challenge this sense of mana and flow through to other dimensions of He Ara Waiora. In 2018 around 66% of Māori said that they had experienced discrimination at some stage of their life, with school being the most common setting (43.3%), followed by the workplace (24.7%) (see Figure 4.9).[194]

Instances of discrimination are increasing for Māori. In 2021, around 30% of Māori aged 15 years and older experienced discrimination in the past 12 months, compared to 24.4% in 2018. Discrimination can take many forms, including individual or internalised discrimination, interpersonal discrimination, institutional discrimination, and systemic discrimination.[195]

There is a correlation between increased discrimination and lower trust in others. Māori report having the lowest levels of trust in government. Mana Tauutuutu is compromised if individuals and whānau feel their rights are not met when engaging with government institutions. Māori report the lowest levels of trust across the courts, police, education, and health systems of other ethnic groups, evidenced by the higher proportion of Māori respondents rating these institutions 0 to 4 out of 10 for trust compared to other ethnicities (see Figure 4.10).[196]

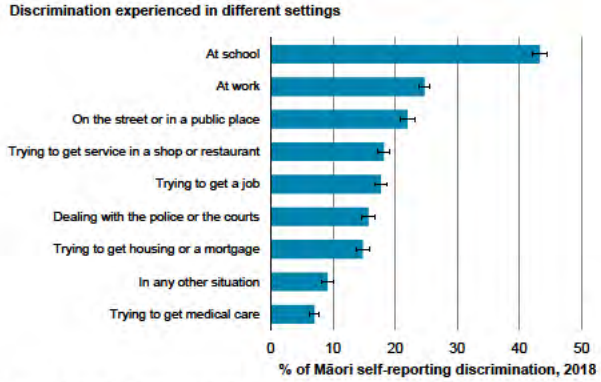
Low trust in government can hamper the ability of key institutions to work effectively with and for Māori. Currently, there is no overall measure of the health of Māori-Crown relationships under the Treaty of Waitangi, although such a measure may capture a key aspect of Mana Tauutuutu.

Figure 4.8: Māori have lower life satisfaction, but the gap may be declining over time



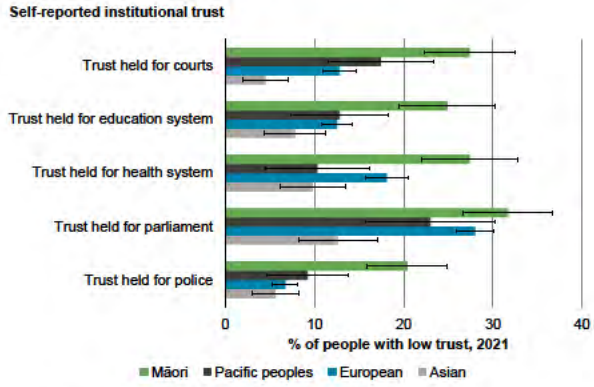
Source: Stats NZ, General Social Survey

Figure 4.9: Discrimination against Māori is most commonly experienced at school and work



Source: Stats NZ (Te Kupenga Survey 2018)

Figure 4.10: Māori are less trusting of public institutions than other ethnic groups



Source: Stats NZ, General Social Survey 2021

192 This does not conflict with the analysis in the previous chapter which noted that ethnicity is not one of the most significant factors related to subjective wellbeing. Mental health, income, and partnership status have a more significant impact in that regression analysis, but, that does not mean that the difference between ethnicities is not statistically significant. For a more nuanced discussion see the background paper to this report, *Wellbeing in New Zealand: a population segmentation analysis* (The Treasury, 2022d).
193 Stats NZ, 2022b.
194 Te Puni Kōkiri, 2022.
195 Cormack et al., 2020.
196 Te Puni Kōkiri, 2022.

Māori report the highest rates of crime victimisation of any ethnic group, with around 34% of Māori saying they had a crime committed against them in 2022 compared to the national average of 29%.[197] However, after considering differences in age and deprivation, the gap in victimisation between Māori and the overall average reduced to 2%, which is not statistically significant. This supports the view that the different age structure and level of deprivation between Māori and the overall average are key contributors to the higher likelihood of victimisation for Māori.

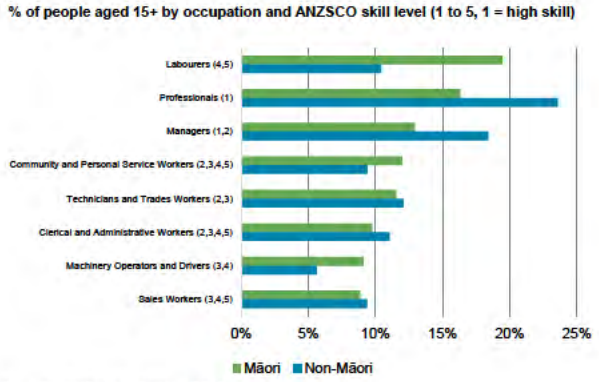
The number of Māori in prison has fallen, along with the general prison population, down to less than 1% of adult Māori in June 2022. However, Māori are still over-represented in the prison system, representing 53% of men in prison and 67% of women in prison in 2022.[198] This is the case despite changes in the age structure of the general Māori population and falls in the number of younger Māori entering the prison system.[199]

Financial wellbeing

Financial wellbeing and resilience play key roles in building Mana Whanake, which is found in the capability to grow and sustain intergenerational prosperity. Māori employment rates have increased, and unemployment rates have declined, steadily over time. However, there continues to be a disparity between Māori and other ethnic groups, and this gap tends to widen during economic downturns.[200] Unemployment rates fell over the course of the pandemic, including for Māori (see Figure 2.7 in Chapter 2).

There has been rapid growth in the number of Māori in high-skill employment, which has increased by 83% between 2006 and 2018.[201] Even with this growth, Māori are still more likely to work in lower-skilled employment than non-Māori, with half of Māori in the two lowest skilled levels (four and five, see Figure 4.11). This could be due in part to the fact that Māori are younger on average, and younger employees more commonly occupy lower-skilled positions as they gain experience. Lower-skilled employment makes Māori more susceptible to economic shocks, as high-skill employment often offers better employment stability and higher incomes.

Figure 4.11: Māori employees are primarily in lower-skilled positions

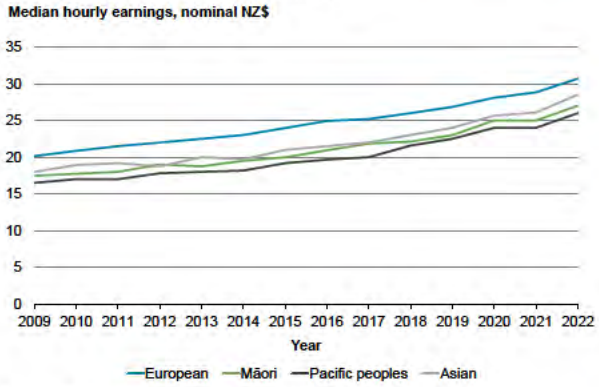


Source: Stats NZ, Census 2018

Adequate income is an important foundation for growing other aspects of wellbeing, and links strongly with the concepts of Mana Āheinga and Mana Tauutuutu in He Ara Waiora. Figure 4.12 shows that median hourly incomes have steadily increased since 2009 for all demographic groups. However Māori and Pacific peoples still have lower levels of income than other groups.[202] In 2018, around 18% of Māori reported they didn't have enough money to meet every-day needs, compared to 10% of the total population.[203] Lower earnings may undermine the sustainability of prosperity in the face of future shocks:

> *"You're working too hard to be able to invest in the next thing, to be able to invest in your children, to be able to ensure your healthcare is really good so that you don't get sick. … How do we shift that average income?"*
> – Hinerangi Raumati Tu'ua, Tainui Group Holdings

Figure 4.12: Māori earnings are growing at same pace as other groups but the gap remains



Source: Stats NZ, Labour Market Statistics

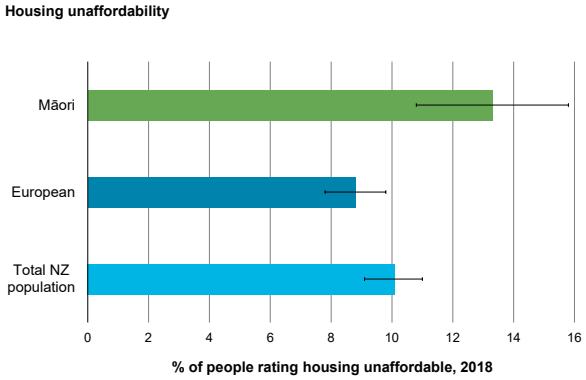
197 Ministry of Justice, 2022.
198 Department of Corrections, 2022.
199 Ministry of Justice, 2022.
200 See the background paper to this report, *Trends in Wellbeing in Aotearoa New Zealand, 2000-2020* (The Treasury, 2022b).
201 BERL, 2018. Skill level is determined by the Australia and New Zealand Classification of Occupations (ANZSCO), which calculates skill level based on the relevant qualifications or equivalent experience required to obtain employment in a given occupation.
202 The Treasury, 2022b.
203 Stats NZ, 2018.

Māori are more likely to rent and report unaffordable housing

Housing is important as shelter and as a physical asset, but Māori perspectives about land and housing factors (such as tenure, crowding, dwelling type, and proximity to ancestral marae) are strongly correlated with key tiakitanga measures. For example, Māori who live in a standalone house are more likely to gather traditional Māori food and take care of Māori sites of importance compared to Māori who live in a joined dwelling.[204, 205]

Chapter 2 also highlighted that housing affordability and quality was significantly lower for those who do not own their own home. More Māori live in rented homes compared to those people of European ethnicity, even when accounting for the younger age structure of Māori.[206] When asked about their own perceptions of housing affordability, Māori were more likely to rate their housing as unaffordable (see Figure 4.13). Among the Māori population, 17% of people living in a rented home found it very unaffordable (0-3 on a scale of 0-10), compared to 9% of people living in a home they owned or partly owned.[207] Housing inequality makes it more difficult for groups on low incomes who do not already own homes to move into homeownership. This can create a barrier to intergenerational prosperity.

Figure 4.13: Māori more likely to find housing unaffordable



Source: Stats NZ, General Social Survey

Housing inequalities have exacerbated pre-existing differences in material wealth, and while the number of children aged 0 to 14 in material hardship has reduced substantially since 2013, deprivation is still prevalent among many households. Approximately 25% of Māori children and young people are growing up in households considered to be in poverty when the cost of housing is factored in.[208]

He kāinga, he tangata – collective approach to wellbeing

A collective approach to wellbeing is a prominent feature of te ao Māori, particularly in terms of increased resilience through the sharing of resources, efforts and burdens. Māori often look to enable shared outcomes and understand the relationships that are at play when approaching challenges.[209] One interview participant spoke about how financial asset management across a collective improved community housing outcomes. The goal of this resource distribution was intergenerational wellbeing, not profit.

> *"... they're not clipping the ticket, not making any capital gain. They're just really doing it for the social good, being able to put people into homes, and giving their whānau a chance to live a happy life"* – Ngarangi Haerewa, Financial Markets Authority.

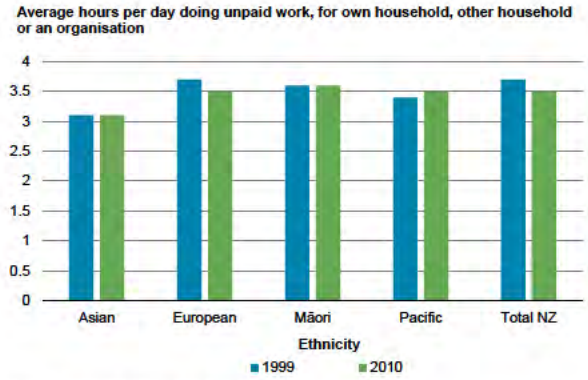
The collective approach to wellbeing of many Māori has helped Aotearoa New Zealand to be resilient to shocks, be they economic or otherwise. For example, when COVID-19 first emerged in 2020, iwi and Māori organisations were quick to identify the risks to whānau in need in their communities in terms of both personal health and economic stress. Many responded quickly and effectively to mitigate the effects of the crisis by leveraging networks, providing goods and social services to their people, creating their own infrastructure and supply chains and largely bearing the additional costs themselves.[210]

> *"Resilience is about the collective. We're supposed to be part of our whānau, we're supposed to be part of our hapū, we're supposed to be part of our iwi, and marae.... We share the wealth and the knowledge, and the expertise and the networks so that everyone moves in the same direction"* – Hinerangi Raumati-Tu'ua, Tainui Group Holdings.

204 Stats NZ, 2021. A joined dwelling is defined as an attached dwelling such as a flat, townhouse, or apartment.
205 Some urban-rural differences impact this as standalone houses are more common in rural areas, and among people who own their house or hold it in a family trust. In 2018, a slightly higher proportion of Māori in rural areas lived in a standalone house (94%), when compared to those in urban areas (89%).
206 Stats NZ, 2021b.
207 Stats NZ, 2021b.
208 Department of the Prime Minister and Cabinet, 2020.
209 Cram, 2021.
210 Cook et al., 2020.

Māori also spend a higher proportion of their time performing mahi aroha and unpaid work[211], which reflects members of households engaged in nurturing and caring for members of their whānau, hapū, iwi, and/or community (see Figure 4.14). The importance of manaakitanga, where rights and responsibilities to the wider community is a way of maintaining the social fabric, links strongly with the Mana Tauutuutu element and flows through to other areas of He Ara Waiora.

Figure 4.14: Mahi aroha (unpaid work) more common among Māori



Source: Stats NZ, Time Use Survey

Māori business models – putting wellbeing values into practice

The Māori economy – made up of individuals, small and medium enterprises, iwi businesses, trusts and post-settlement entities among others – is growing faster than the rest of the economy, representing 6.8% of national GDP in 2018.[212] While the Māori economy lags behind the broader economy, the gains being made in recent years have the potential to support sustainable and productive economic growth, including better intergenerational outcomes for Māori.[213]

Iwi and Māori institutions are innovative and often endeavour to incorporate Māori values and principles into their strategic goals and approach to the governance, management and operations of their business.[214] This often means using a multiple bottom-line approach, which balances multiple values and objectives spanning social, cultural, financial, environmental, spiritual and political domains.

While further work is required to understand Māori businesses and productivity, there is the potential to support wellbeing outcomes in a way that is culturally grounded in te ao Māori.

211 This data is drawn from the Time Use Survey, which was last updated 2009/10.
212 BERL, 2018.
213 New Zealand Productivity Commission, 2021a.
214 Mill & Millin, 2021.

The wealth of Aotearoa New Zealand

LIVING STANDARDS FRAMEWORK DASHBOARD INDICATORS

FINANCIAL AND PHYSICAL CAPITAL

↓ 7.9%
Annual percentage change in the annual creation or acquisition of produced assets

↑ $8,000
Net intangible fixed assets per capita

↑ -50.8%
Net international investment position as a percentage of GDP

↑ $144,700
Net fixed assets per capita

NATURAL ENVIRONMENT

↑ 13.7 DEGREES
Annual national average temperature

+ 77.2%
of indigenous species classified as threatened

↑ 9.06 cm
Annual mean coastal sea-level rise relative to a 1986-2005 baseline period

↓ 591,000
TONNES
Total allowable commercial catch

↓ 752
BILLION CUBIC METRES
Volume of groundwater stocks

↑ 54,900
Net greenhouse gas emissions in kilotonnes of CO_2 equivalent

↑ 40.3%
Renewable energy as a percent of total primary energy supply

HUMAN CAPABILITY

↓ 503
Programme for International Student Assessment (PISA) mean score for reading, mathematics and science

↑ 80.9%
of adults aged 25-64 with at least an upper secondary education

→ 69.6 years
Health expectancy at birth (living in good health)

↑ 22,600
DALYS PER 100,000 PEOPLE
Health loss caused by non-communicable diseases

↑ 4%
of people who can converse about everyday things in te reo Māori

SOCIAL COHESION

→ 83.8%
of adults who said it was easy or very easy to express their identity

→ 17.4%
of adults who experienced discrimination in the past 12 months

+ 88.5%
of adults with a score of 7/10 or higher for sense of belonging

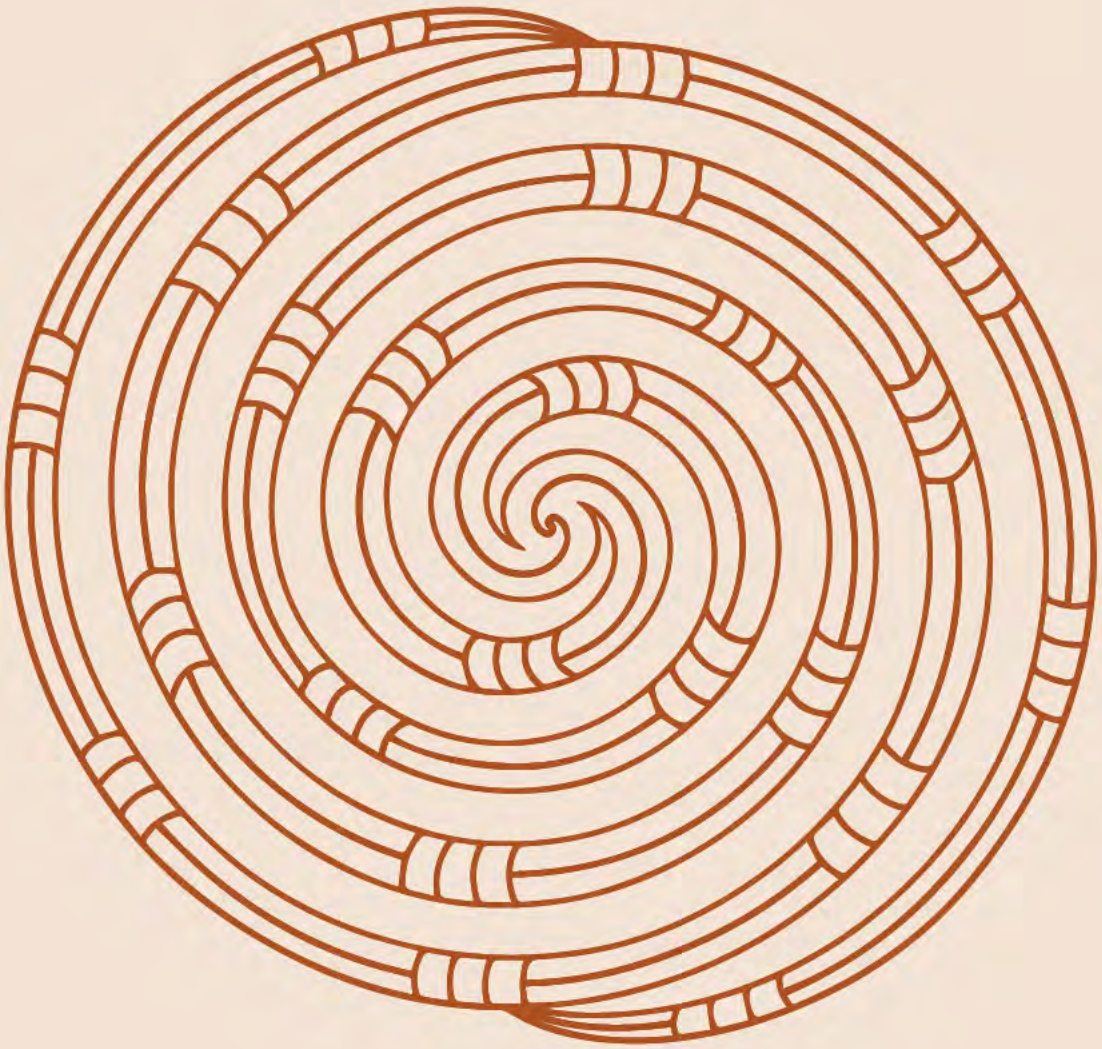
↓ 65.9%
of adults with a score of 7/10 or higher for trust in other people

KEY ↑ Increasing ↓ Decreasing → Flat + New measure

SOURCE:
For more information and sources see lsfdashboard.treasury.govt.nz/wellbeing

5

Our future wellbeing



CHAPTER 5: OUR FUTURE WELLBEING

This chapter covers the sustainability of, and risks to, future wellbeing in Aotearoa New Zealand. It explores evidence around the level and quality of our national wealth that will underpin future wellbeing and New Zealand's resilience to negative risks to our wellbeing.

Key messages

- An important driver of our future wellbeing is the extent to which we are investing in, or drawing down, the wealth or resources that underpin wellbeing.
- Our increasing stocks of physical wealth and human capability will support the sustainability of wellbeing.
- Future wellbeing will also benefit from strong institutions and social cohesion, although Aotearoa New Zealand is not immune to the threats to social cohesion that we have been seeing around the world.
- There has been deterioration in aspects of the natural environment that will affect future wellbeing. In the past Aotearoa New Zealand ran down aspects of natural capital in favour of building physical capital, but in future this trade-off may be less feasible. There is tentative evidence that we may be approaching biophysical limits which, if breached, would threaten overall wellbeing. Whether we can sustain wellbeing depends on societal choices, technology and productivity.
- Climate change and other environmental challenges imply that our current way of life is unsustainable. However, whether or not overall wellbeing can be maintained depends on whether societal choices, technology and productivity allow us to adapt. Transforming the economy toward lower greenhouse gas emissions and adapting to a warmer global climate will be key challenges.
- We face many significant risks and slow-moving threats to the sustainability of our wellbeing. New Zealand is highly exposed to infrequent, high impact risks from natural hazards.
- Managing risks, particularly major, unexpected ones, require us to invest in the quality of our institutions and to build buffers at all levels – from national, regional and local governments through to communities, businesses, families and whānau.

Overview

Our future wellbeing depends on both how sustainably we use our resources and how resilient we are to unexpected events. Graphic 5.1 highlights that both our national wealth and our institutions are important to both our sustainability and resilience.

Whether our wellbeing is sustainable is depends on the resources that we will bequeath to future generations, as well as how effectively and efficiently we are using them. In the Living Standards Framework, these critical resources are described as the four aspects of wealth: ***financial and physical capital, human capability, social cohesion and the natural environment***. This wealth represents the total resources available to society to support wellbeing now and in the future. We face choices about how to balance using our wealth now against investing in it for the future. These choices typically lie with our institutions, including our whānau, our firms and our local and central governments.

Aggregate measures of this wealth suggest growth in physical wealth and human capability will support the sustainability of wellbeing but digging into more detail shows challenges such as declining youth educational performance and unmet infrastructure needs. Likewise, our future wellbeing will also benefit from strong institutions and social cohesion, but there are significant differences in trust across ethnic groups. Deterioration in aspects of our natural environment also pose significant challenges to the sustainability of our future wellbeing.

Our future wellbeing will also be determined by how well we cope with change and risks. Positive changes from productivity growth and technological improvements would support higher wellbeing in the future, but sudden catastrophes like earthquakes and slower-onset risks like climate change could make our wellbeing unsustainable.

How effectively we address these risks will be determined by our resilience to adapt and absorb shocks in the future. In turn, it is our collective institutions, from whānau to business and government, that determine how resilient we are and the quality of decision-making systems to prepare for and respond to risks.

The first part of this chapter considers the available evidence for whether we are increasing or decreasing the wealth we are passing on to our children.

The second and third parts of this chapter consider downside risks to our future wellbeing and how building resilience can reduce the impact on wellbeing when risks crystallise into reality.

Graphic 5.1: Our future wellbeing will be shaped by how our wealth and institutions support resilience and sustainability

Is wellbeing sustainable?

In our assessment, it is not possible to state categorically that Aotearoa New Zealand's wellbeing is either clearly sustainable or clearly unsustainable.

As highlighted in Graphic 5.1, the level of wellbeing we are likely to be able to enjoy sustainably depends on the overall amount of resources, or wealth, available to support wellbeing, and on how 'productive' we are in turning that wealth into wellbeing. If the next generation inherits at least as much wealth as we have today, that will give them at least the same opportunities to meet their wellbeing aspirations as we have today. Whether or not overall wealth is increasing is therefore a key indicator of whether wellbeing is likely to be sustainable into the future.

Our assessment of whether we are building up or drawing down the four aspects of our wealth starts by looking at various measures of aggregate or composite monetised measures of wealth.[215] These measures come with the important caveat that they are incomplete in terms of measuring all the different components of our national wealth. This partly reflects debates about what should be included and partly reflects the challenges in obtaining reliable monetary estimates for the many things that are not bought and sold.

As a result, we also explore trends in each of the four aspects of wealth to 'look under the hood' for potential challenges to our sustainability of wellbeing, examining both components of wealth that can be measured in monetary terms and other indicators. Box N sets out the approach to measuring wealth and its aspects in this report.

National and international measures of inclusive wealth

The World Bank[216] and United Nations[217] each estimate the aggregate monetary value of physical, human and natural capital across countries. The Treasury also commissioned separate analysis of the value of Aotearoa New Zealand's human capital to supplement this report.[218] These estimates 'add up' the value of these major components of wealth across countries. The interpretational issues noted in Box N are highlighted by the different results delivered by alternative methodological approaches.

215 This approach is consistent with the framework developed by Arrow et al., 2010a.
216 World Bank, 2021.
217 United Nations Environment Programme, 2018.
218 Le, 2022.

BOX N: MEASURING WEALTH

This box looks at the measurement of wealth for the purposes of assessing the sustainability of wellbeing. Measuring wealth involves two basic questions: (1) 'what' should be included as wealth, and (2) if something is included, 'how much' of it there is.

The 'what' question is about the types of wealth and their components. The Living Standards Framework, in common with much of the literature, recognises four major types of wealth as relevant: physical and financial capital, human capability, the natural environment and social cohesion. 'Asset', 'capital' and 'resources' appear in various places in the literature as alternative terms for wealth and its major types, but the concepts are essentially the same for the purposes of sustainability analysis. Within each type of wealth, sources differ, in some cases markedly, on which components to include on theoretical grounds. This makes a big difference to estimates of 'how much' natural capital in particular there is in New Zealand.

A second analytically challenging aspect of 'how much' is that wealth is necessarily a forward-looking concept. An attribute of any form of wealth is that it generates streams of earnings (in the form of wellbeing benefits) into the future. For forms of wealth frequently traded in markets, such as buildings, the value of future earnings is captured naturally ('capitalised') in the market price. For components of wealth that are not traded, measuring 'how much' requires projecting the stream of benefits in the future and capturing them in the form of a 'present value' of the stream. Since future benefits from any particular component of wealth depend on other components, this in turn requires a view about the future path of each type of wealth and how they work together (their 'productivity' in terms of wellbeing).

Many of the potential choices in answering the 'what' and 'how much' questions required to measure the trajectory of overall wealth are subject to extensive debate in the literature. We illustrate this by considering the aggregates and each of the wealth types discussed in the main text.

The main text discusses two aggregate measures of Aotearoa New Zealand's wealth (called 'capital' in both measures), one produced by the World Bank (with a measure of human capital for Aotearoa New Zealand provided by Le (2022)) and one by the UN Environment Programme. These provide time series measures of 'how much' wealth there is, and hence can be used as indicators of whether or not wealth is increasing.

Both measures are aggregates of the present values of measured physical and financial capital, human capability and the natural environment, thus covering three of the four major types of wealth in the Living Standards Framework. The chosen components are 'monetised' – expressed in dollars as a common unit. The measurement approach can be summarised as follows:

- **Physical and financial capital:** This type of wealth includes human-made assets such as buildings and machinery, intellectual property and cultural artefacts, and financial net assets. It is straightforward to obtain quantities of many components of physical and financial capital, because they are bought and sold in markets in transactions measured in dollars.

  In both the World Bank and UN Environment Programme measures, physical investment flows are cumulated to form the stock of physical capital, with assumed depreciation on the existing stock of physical capital netted off (the 'perpetual inventory' approach). For financial capital, direct dollar measures of the stock are available from balance sheet accounts. Both organisations draw these statistics from the internationally standardised System of National Accounts (SNA) and Balance of Payments, facilitating international comparisons.

  Notably, the SNA statistics do not cover all of the types of human-made assets listed above, and effective depreciation is not measured directly. This means the measures do not account for sudden large damage to the physical capital stock such as from natural disasters or other changes to the effective value of physical capital.

- **Human capability:** This includes knowledge and education, physical and mental health and cultural knowledge and capability. The concept of human capability and capital has been well studied and a range of indicators in various units exist, such as test scores, qualifications, life expectancy and language ability. However, it is not straightforward to obtain monetised measures of human capability because these things often do not have explicit prices or values attached.

  The technique used by both the World Bank and the UN Environment Programme, focuses on the future stream of labour market earnings due to human capability. The link between the two is now quite well characterised empirically, with the main predictors typically used being education, age (reflecting work experience and labour force participation) and gender (which empirically predicts labour force participation).

Both organisations recognise the importance of health to human capability. However, because of measurement challenges, it is not included in human capability beyond its influence on labour market earnings through labour force participation. They also do not provide a monetisation of the cultural capability component of human capability. Finally, the approach based on the predicted future stream of labour market earnings does not count the other ways in which human capability enriches people's lives, such as the direct wellbeing benefits from education, good health and cultural richness.

- **Natural environment:** This includes all aspects of nature that support life and human activity directly or indirectly, for biological, cultural, spiritual or economic reasons. This necessarily expansive scope recognises the large variety of ways in which nature supports human wellbeing, many of which we are only beginning to understand. It also means that obtaining monetised quantities for all the relevant components of the natural environment is challenging. The most difficult challenges include converting the quantities in natural units (hectares of forest, hectolitres of water, number of species…) into dollar values, avoiding double counting, and projecting future wellbeing benefits in a way that takes account of how different components of the natural environment interact. Monetisation of the natural environment is heavily dependent on the assumptions used, many of which are less empirically well characterised than for, say, human capability. This includes the underlying biophysical models needed to avoid double counting, for which the science is still very much developing.

  Not surprisingly the measurement of monetised natural capital is where the two approaches differ most. The World Bank approach is based on concepts in the SNA, and for the natural environment, the System of Environmental-Economic Accounting (SEEA). Both the SNA and the SEEA monetise certain components of the natural environment based on the value that the asset would be exchanged for in cash, which in some cases can be derived from market prices (for example, for harvested timber or fish), and in others requires more complex thought experiments (for example, for the value of mangrove swamps in protecting coastal property from storm surges). The UN monetises components of the natural environment using a broader concept of the marginal contribution of the natural environment to total social value in terms of future wellbeing (the 'shadow price'). The challenges of measuring this concept directly mean that it also has to use market prices as proxies for the shadow prices of many components (for example, cropland, agricultural land, production timber and fisheries). Both approaches require projecting the streams of benefits into the future.

  A large part of the difference in monetised value of the natural environment between the two approaches appears to come from the contributions to wellbeing provided by forests beyond timber. Within this component, the World Bank includes only non-wood forest products, water services, and recreation services, which it values using market price proxies. The UN includes pollination, air quality and habitat for genetic diversity, to which it assigns high social values per hectare, and which the World Bank does not include.

- **Social cohesion:** This wealth consists of the willingness of diverse individuals and groups to trust and co-operate with each other in the interests of all, supported by shared intercultural norms and values. Although both organisations recognise the importance of social cohesion and broader types of social capital to wellbeing and supporting the performance of the other three capitals (the UN Environment Programme refers to social capital as an 'enabling asset'), neither attempts to monetise it for inclusion in an aggregate with components of the other three types of wealth. Social cohesion is perhaps the type of wealth that is most difficult to monetise of all four and is not included in either measure.

For many significant components of wealth, both approaches project the stream of future benefits based on past observation. For example, the future income growth from human capability is projected based on past growth. This approach assumes that the components of wealth can continue to support wellbeing as they did in the past. It does not consider how depleted any of them might become over time, or what technological improvements might arise to allow new transformations of materials and knowledge and increase their effectiveness in supporting wellbeing. Both assumptions seem questionable in light of the evidence on environmental limits and the dynamic and innovative nature of economic activity.

There are many other differences between the two wealth measurement approaches in addition to those outlined above, and limitations to be aware of. Unlike the commonly-used SNA-based approach to physical and financial capital, measuring the other types of wealth and aggregating them to form a measure of overall wealth is still in its infancy. As discussed in the main text, the two aggregate measures outlined here suggest rather different pictures of the trajectory and composition of wealth in New Zealand, with opposite implications for the sustainability of wellbeing. These differences, and an understanding of how they arise from the different methodological choices involved, help shine a light on the complexities involved in wellbeing sustainability assessment and on the benefits of alternative approaches.[219]

219 See the background paper to this report, *New Zealand's wellbeing: is it sustainable and what are the risks?* (The Treasury, 2022c).

The World Bank and United Nations provide conflicting valuations of the aspects of wealth, particularly the valuation of the natural environment (see Figures 5.1 and 5.2). This is most clearly apparent when we compare Aotearoa New Zealand's results with other high-income countries. The United Nations metrics suggests that we have one of the highest levels of wealth per capita, driven by a very high valuation of natural capital, which is 70% of Aotearoa New Zealand's total wealth on this measure. The World Bank, on the other hand suggests that our total wealth per capita is at the lower side of the range and that our wealth is largely human and physical capital, with natural capital only 10% of the total.

The very large difference in natural capital value per capita between the two measures – sufficient to heavily influence the assessment of whether aggregate wealth is increasing (World Bank) or decreasing (United Nations) – appears largely due to the differing treatment of forested land as a source of benefits other than harvested timber. There are differences in what is counted in such benefits, as well as in their respective valuation philosophies, as noted in Box N.

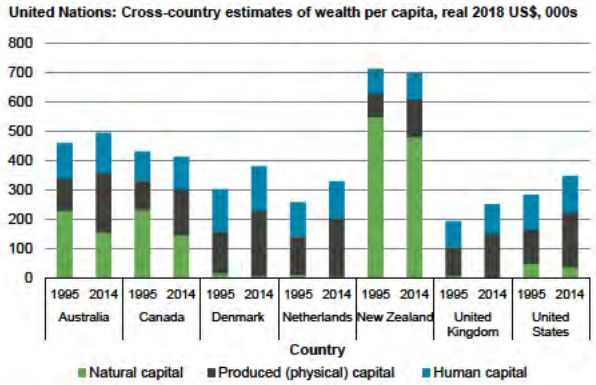
Each agency has consistently used its methodology to measure changes since 1995. In our view, this means that the trends may be more reliable even though there is a large difference in the measured level. As a result, we can with some confidence conclude that:

- the value of our human capability and physical capital is increasing, at rates similar to those in developed countries shown in Figure 5.1 and Figure 5.2
- the measured value of our natural environment is either slightly increasing or decreasing, depending on how it is measured (see Figure 5.3).

In the past, Aotearoa New Zealand has tended to build its financial and physical capital and its human capability through activities that depleted our natural environment. There is accumulating evidence that this may not be possible in the future. An assessment by the Stockholm Resilience Centre suggests that Aotearoa New Zealand is possibly already breaching five key planetary boundaries – three definitely (climate change, biodiversity, and biogeochemical flows) plus two possibly (land and water use) – although the methodology underlying this assessment is not uncontested and there is uncertainty around the location of some of the limits to the Aotearoa New Zealand case.[220]

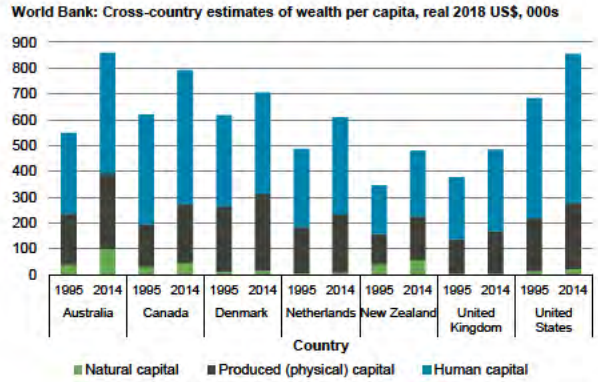
Having said that, at a global scale it is clear from the thorough studies of the Intergovernmental Panel on Climate Change and others that climate change, for one, is an urgent concern whose consequences are appearing more frequently and in more locations around the globe. If we are at or approaching these limits at a global or national scale, our current way of life will need to change. Whether wellbeing can be sustained will depend on whether technological innovation, productivity growth and societal choices allow us to adapt to these challenges.

Figure 5.1: The United Nations measures suggest that Aotearoa New Zealand's total wealth is declining reflecting their lower natural capital values



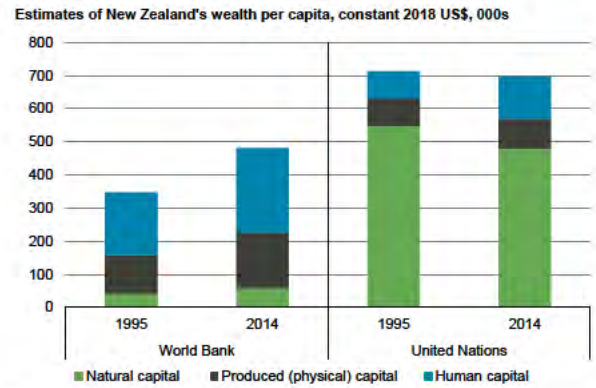
Source: United Nations Environment Programme, 2018

Figure 5.2: The World Bank measures suggest Aotearoa New Zealand's total wealth is increasing because of growth in physical and human capital



Source: World Bank, 2021 (produced and natural capital), direct communication; human capital, Le, 2022

Figure 5.3: The two different estimates of Aotearoa New Zealand's wealth show different overall levels and trajectories, but human and physical wealth is growing in both



Source: United Nations Environment Programme, 2018 (using the Living Standards Framework language for the equivalent capitals); World Bank, 2021 (produced and natural capital), direct communication; Le, 2022

220 See Andersen et al., 2020, and the discussion in the background paper to this report, *New Zealand's wellbeing: is it sustainable and what are the risks?* (The Treasury, 2022c).

In addition to its many other benefits for wellbeing, productivity growth helps improve the efficiency with which we use our aspects of wealth to support wellbeing. An important example is the extent to which we can continue the recent trend of 'decoupling' improvements in our economic performance and wider wellbeing from degradation of the environment. New technology and innovation can reduce the intensity of our resource use through, for example, precision irrigation reducing water used in agriculture or manufacturing alternative proteins in factories.

Looking within the four aspects of our wealth

This section looks at the sustainability of wellbeing through examining the four aspects of wealth in the Living Standards Framework individually.[221] This analysis highlights that, even when aggregate measures are increasing, there are significant and relevant distributional or localised issues within each of the aspects of our wealth. It also enables a more comprehensive look at the components of each aspect of wealth, bringing in elements that are difficult to monetise, and are thus not counted in the aggregate measures described above.

HUMAN CAPABILITY

People's knowledge, physical and mental health, including cultural capability.

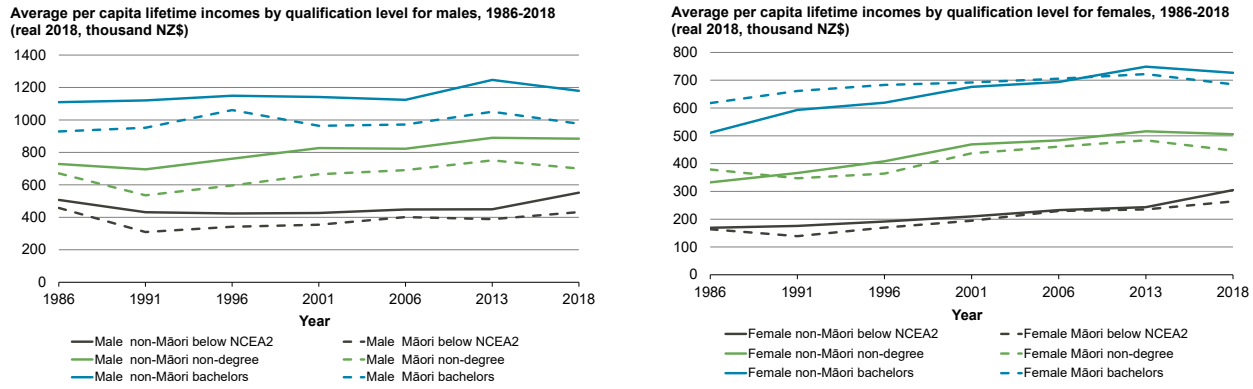
According to the analysis of the value of Aotearoa New Zealand's human capital commissioned by the Treasury, the value of human capital attributable to the likely lifetime earnings from educational achievement alone has been steadily increasing over the past two decades or so. The United Nations measure of Aotearoa New Zealand human capital, which takes a similar approach to monetising human capital, also shows an increase. The Treasury-commissioned measure uses more up-to-date and comprehensive local data and puts the value of human capital at roughly one and a half times that of physical capital, underlining the economic importance of human capability – though this proportion is somewhat less than that seen in the developed country comparators shown in Figure 5.2.[222]

This measure considers just the labour market returns from education and not the other wellbeing benefits of human capability and development. As noted in Box N, human capability is recognised widely to be much more than earnings potential arising from formal education. Human capability is an aggregate of people's knowledge, physical and mental health, and cultural capability. Knowledge underpins people's income and job satisfaction, which in turn impacts on wellbeing domains like their housing and health. Good health supports these opportunities, while poor health can have a cascading impact on wellbeing as it undermines wellbeing in a range of areas.

The estimates we have do not directly consider the contribution of health to human capital, other than the indirect influence of health status on earnings capability and life expectancy.

We are able to break down the aggregate estimates and look at how measures of lifetime earnings vary by gender and ethnicity, as shown in Figure 5.4. The lifetime earnings of females have been trending upwards over time for all skill levels and for both Māori and non-Māori. For males, the overall trend is less clear over time, but the difference between Māori and non-Māori is much more significant. In part, the difference in both cases is due to different age profiles and labour market participation rates.

Figure 5.4: Lifetime incomes have risen but differences remain driven by age, skill level and rates of labour market participation



Source: Le, 2022

221 This is not intended to be a comprehensive assessment. For a detailed review, see NZIER, 2022 and a range of other reporting such as Ministry for the Environment, 2022a.

222 Le, 2022.

Given the measures above rely heavily on earnings capability, it is also important to consider trends in health. As discussed in Chapter 2, our physical health has been improving but we are middling on many measures compared to other OECD countries (see Figure 5.5). Healthy life expectancy has been increasing over the last 25 years, but growth has levelled off in recent years and Aotearoa New Zealand has slipped below the OECD median.[223] There are also significant differences across gender and ethnic groups and more of the years are lived with lower quality of life.[224]

FINANCIAL AND PHYSICAL CAPITAL

This includes:

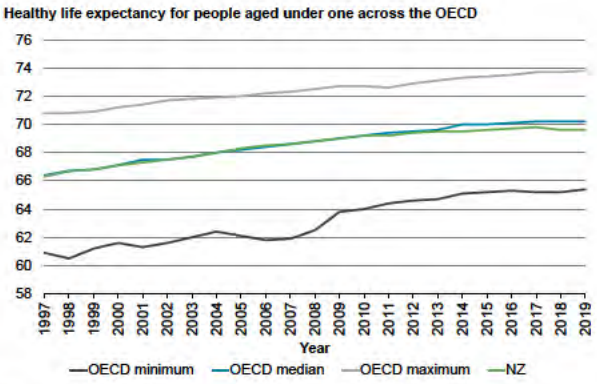
- tangible built assets, such as buildings, machinery and infrastructure, including physical taonga such as marae
- intangible, knowledge-based assets, such as research and development, software and databases, and arts and literature
- financial assets minus liabilities, including currency, bank deposits, loans and equity.

A range of trends in physical and financial capital are covered in detail in other reports such as the Treasury's Investment Statement.[225]

At the aggregate level, Aotearoa New Zealand's stock of physical capital has been growing steadily in per capita terms since the mid-1990s, as shown in Figure 5.6. However, compared to some other OECD countries our physical capital per unit of labour is low. This is often cited as one reason for our relatively weak labour productivity performance, which then reduces the potential to invest in more for greater wellbeing and accumulation of capital generally. However, low physical capital intensity may also reflect factors such as Aotearoa New Zealand's significant growth in the service sector, which tends to rely more heavily on ICT and intangible capital rather than physical capital.[226]

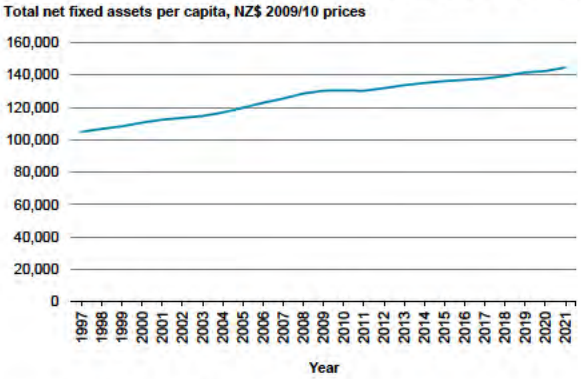
One aspect of this capital investment is infrastructure. Infrastructure assets form a key part of our physical capital and support wellbeing by enabling access to economic and social activity of all sorts. Te Waihanga | New Zealand Infrastructure Commission estimates that, between 2007 and 2020, Aotearoa New Zealand spent a similar share of GDP on network infrastructure compared to the median high-income country (see Figure 5.7), though some, like Australia, spend substantially more.[227] However, Te Waihanga has also estimated a significant historical and future infrastructure gap of $210 billion in 2020 prices. Central government accounts for around three-quarters of this gap.[228]

Figure 5.5: Healthy life expectancy has been rising, but not as fast as the median OECD country (LSF Dashboard indicator)



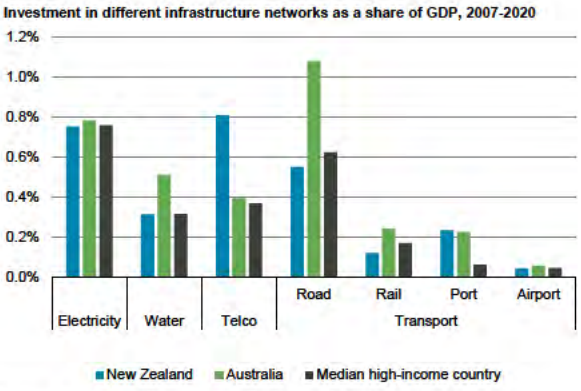
Source: OECD Health Statistics

Figure 5.6: The real value of Aotearoa New Zealand's stock of physical capital has been rising (LSF Dashboard indicator)



Source: Stats NZ, System of National Accounts

Figure 5.7: New Zealand has invested a similar share of GDP into infrastructure as other high-income countries, with a heavy weighting on telecommunications

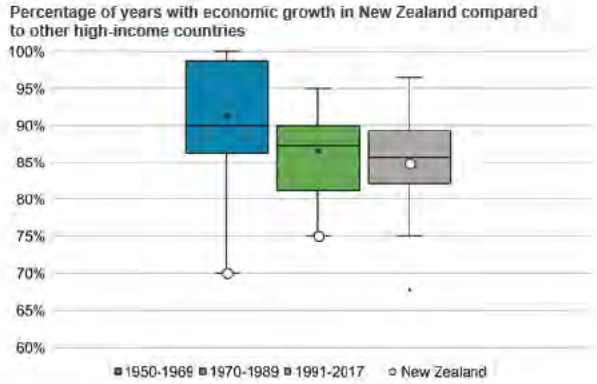


Source: Te Waihanga | New Zealand Infrastructure Commission, 2021b

223 Life expectancy overall has continued to increase (for instance from 82.1 years in 2019 to 82.3 in 2020) and is high compared to the OECD median (81.95 and 81.4 respectively, with the decline due to the impact of COVID-19), but Aotearoa New Zealand has seen a decline in healthy life because we are spending more years with health reducing conditions.
224 See the background paper to this report, *Trends in Wellbeing in Aotearoa New Zealand, 2000-2020* (The Treasury, 2022b).
225 The Treasury, 2022a.
226 For a fuller discussion see Janssen, 2022.
227 Te Waihanga | New Zealand Infrastructure Commission, 2021b.
228 Te Waihanga | New Zealand Infrastructure Commission, 2021a.

Financial and physical capital is also affected by volatility in the Aotearoa New Zealand economy. A stable economy promotes investment, whereas economic volatility creates negative shocks that can shrink or slow capital investment. Aotearoa New Zealand's economy is much less volatile now than it was from the 1950s to the 1990s (see Figure 5.8). Many countries have become less volatile, but we in Aotearoa New Zealand have improved more than most countries. The reasons for this greater stability are debated. Some explanations include a growing share of services (like ICT) in the economy and better macroeconomic policies such as a floating exchange rate, which mutes the impact of overseas economic shocks.[229]

Figure 5.8: New Zealand has improved its level of economic stability significantly since 1950 and is now close to the average of other high-income countries



Source: Calculated from the Penn World Table GDP per capita: https://www.rug.nl/ggdc/productivity/pwt/?lang=en

NATURAL ENVIRONMENT

All aspects of the natural environment which support life and human activity, whether valued for spiritual, cultural or economic reasons.

Our natural environment supports life, the economy and wellbeing more broadly through the flow of 'ecosystem services' such as clean air, fresh water and cultural, spiritual and recreational benefits. He Ara Waiora describes the essential role of Te Taiao in supporting life.

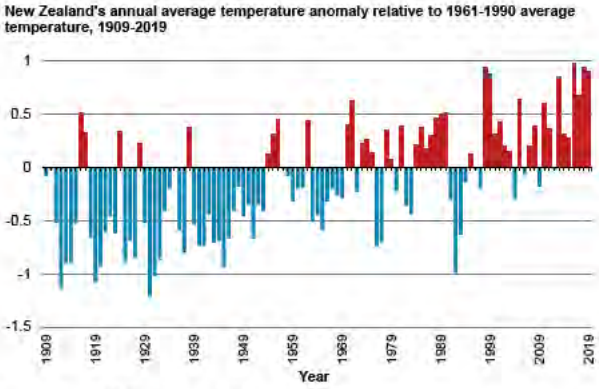
Although international measures are inconclusive, we believe that deteriorating aspects of the natural environment are a threat to our future wellbeing. In the past, Aotearoa New Zealand ran down aspects of natural capital in favour of building physical capital, but in future this trade-off may be less feasible. There is tentative evidence that we may be approaching biophysical limits which, if breached, would threaten overall wellbeing. Whether we can sustain wellbeing depends on societal choices, technology and productivity.

According to the World Bank and United Nations measures set out above, the monetised value of our natural environment has either slightly increased (World Bank) or slightly decreased (United Nations). Box N on measuring wealth notes some of the reasons for the difference and the limitations of these monetised measures. For this reason, it is important to also consider natural environment indicators in natural or physical units.

One way in which the link between wellbeing and the natural environment can change is through the resource intensity of our lifestyles. There is evidence that this has been shifting internationally as less resource intensive modes of production are found. New Zealand is also seeing some evidence of this as well. For instance, the energy intensity of our GDP decreased by 31% between 2000 and 2018.[230]

Our natural environment is part of a global system, so it is impacted significantly by decisions made by other countries in response to climate change. Risks to our wealth from climate change are discussed in the following section, but it is clear that our natural environment is already experiencing some of the impacts from global climate change. For example, Figure 5.9 shows how since the late 1990s, New Zealand temperatures have consistently averaged higher than the 1961-1990 average.

Figure 5.9: New Zealand has seen a significant rise in average temperatures since the late 1990s



Source: Stats NZ (Temperature data)

One study found that climate change contributed to 12 extreme rainfall events in Aotearoa New Zealand between 2007 and 2017, which resulted in $471 million in total insurance costs. Around 30% of these costs were attributable to human influence on climate change. The two drought events of 2007 to 2008 and 2012 to 2013 have been estimated to incur about $4.8 billion in costs, including indirect losses, with human influence on climate change accounting for an estimated 15% to 20% of these costs.[231]

229 See the background paper to this report, *New Zealand's wellbeing: is it sustainable and what are the risks?* (The Treasury, 2022c).
230 See the background paper to this report, *New Zealand's wellbeing: is it sustainable and what are the risks?* (The Treasury, 2022c).
231 Ministry for the Environment, 2022a.

A more detailed background paper commissioned by the Treasury[232] also discusses particular components of the natural environment in more detail. This NZIER report discusses the contribution of the natural capital to wellbeing in more detail, covering agriculture, forests and the marine environment, and the supporting functions played by biodiversity. The Environment Aotearoa[233] reporting series also suggests a number of issues in particular environmental domains and places. Some key findings across these reports are:

- Water – many lake and river sites score poorly in terms of water quality. An estimated 46% of our lakes are also rated poor or very poor due to nutrient enrichment.
- Soil quality – 80% of measured sites failed to meet the targets for at least one of the seven soil quality indicators for the period 2014 to 2018. NZIER found that, although the proportion of land used for agriculture is decreasing and the value of the production from that land has increased significantly, this has coincided with large increases in the use of nitrogenous fertiliser and irrigation, with associated adverse environmental impacts.
- Forested land is increasing, which offers a range of direct wellbeing benefits and important biophysical regulating functions as well as cultural significance in the case of indigenous forest. The extent of these benefits and functions varies with the type of forest and the species of tree.
- A range of studies suggest that the value of services provided by the marine environment could be very large, ranging across familiar provisioning services such as fisheries as well as regulatory functions such as storm surge protection from mangroves and the cultural significance of marine and wetland sites.

SOCIAL COHESION

Social cohesion is the willingness of diverse individuals and groups to trust and co-operate with each other in the interests of all, supported by shared intercultural norms and values.

Our future wellbeing will benefit from generally strong institutions and social cohesion. However Aotearoa New Zealand is not immune to the threats to social cohesion that have been observed globally, and faces challenges such as significant differences in reported discrimination across ethnic groups.

Social cohesion is the willingness of diverse individuals and groups to trust and co-operate with each other in the interests of all, supported by shared intercultural norms and values.

The benefits of social norms, rules or values – social cohesion – are sometimes underpinned by codification into laws, but they may also include informal expectations or shared values that support community cooperation, improve the effectiveness of government and law enforcement, or reduce the costs of commerce. For example, Dr Ashley Bloomfield, then Director-General of Health noted in 2020 "*there is no way we could police our way through a lockdown, it relied on people actually doing the right thing – and they did it.*"[234]

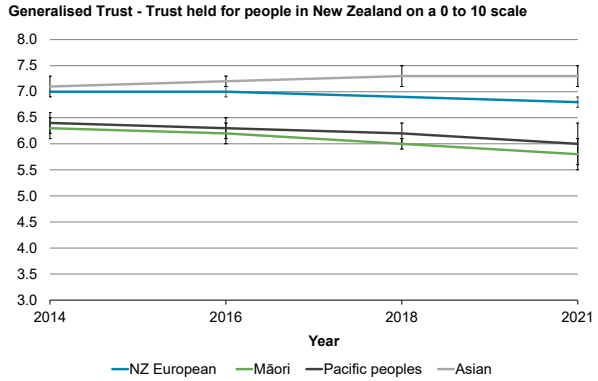
The key benefit arising from social cohesion is increased predictability, which supports trust and coordination. Higher trust reduces the cost of monitoring and enforcing agreements, which may encourage people to coordinate on projects that they would not otherwise have undertaken. As a result, the strength of social cohesion is often measured by indicators relating to trust in various forms, such as generalised trust in other members of the community, sense of belonging, discrimination, trust in government and other authority figures, and perceived levels of corruption.

On a comparative basis using OECD data, Aotearoa New Zealand has generally high performance on such metrics. In a different global survey, the majority of people in New Zealand reported high levels of satisfaction with political and economic systems compared to other advanced economies: 24% of people say the political system needs major changes and 28% say the economic system needs major change, compared to a global median of 56% and 51% respectively.[235]

However, looking domestically there are important differences in measures of social cohesion. For example, while the majority of people report regular social connection there remains a small percentage of people who report that they may have less-frequent social contact or who report little or no attachment to their community. Statistics also suggest a moderate increase in people who feel lonely, which may be attributable to recent events, societal change or social isolation.

Levels of trust held in other people also differ between ethnic groups (see Figure 5.10). There has also been a general trend of declining trust over time on this measure, which mirrors trends across developed countries.[236]

Figure 5.10: A higher proportion of people in Aotearoa New Zealand trust other people, but there are also ethnic differences



Source: Stats NZ, General Social Survey

232 NZIER, 2022.
233 Ministry for the Environment, 2022a.
234 Radio New Zealand, 2022.
235 Pew Research, reported in Mazey and Richardson, 2022.
236 United Nations, 2021.

These variations by ethnicity also appear in the level of trust in institutions, and experiences of discrimination across different ethnic groups (see Chapter 4). For example, while European and Māori ethnic groups had broadly similar levels of trust in Parliament, Māori had noticeably lower levels of trust in the media and police. These differences in trust may reflect different life experiences – 17% of the population report that they have experienced discrimination of some form over the last 12 months, but this number rises to nearly 30% for Māori.

These variations in the level of trust and social cohesion across the population suggest that durability of overall high levels of trust and social cohesion shouldn't be taken for granted.

Recently, media attention has focused on the rise of harmful misinformation on social media in many countries, including Aotearoa New Zealand. In the US, this has coincided with sharp falls in trust and confidence in authority figures and institutions such as elected officials, medical scientists, police and military and journalists.[237] Although the reasons for observed trends and patterns in social cohesion no doubt reflect particular histories and cultures, the increasing prevalence and accessibility of misinformation represents a relatively novel threat to social cohesion.[238]

What risks do we face to our wellbeing?

It is not only the levels and types of our capitals that matter for our future wellbeing. We also face a wide range of risks to future wellbeing. Some risks are well-characterised because they occur relatively frequently and within more or less predictable ranges. The probability and impact of others is harder to anticipate because they are observed less often, but may be very adverse and complex when they do happen.

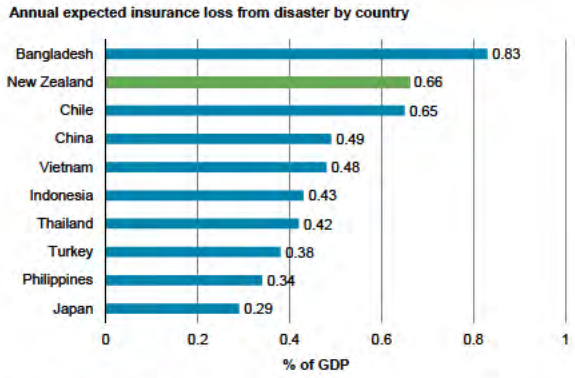
Of course, uncertainty about the future also involves unexpected opportunities – 'upside risks' – for wellbeing to improve. Upside risks may come in the form of things turning out better than is typical or in the form of discoveries and new technologies. Very few upside risks in practice turn out to be suddenly and persistently game-changing, but tend rather to overlap and play out incrementally, resulting in an overall relatively steady improvement in overall standards of living and wellbeing.

Our future wellbeing will depend on how nimbly we navigate these risks and grasp these opportunities – or how resilient we are. It is not possible to cover every upside or downside risk in this report. Instead, we note the wide range of risks and focus on a selection of 'downside tail' risks, or very adverse and irregular events, to illustrate their potentially material impact on sustainability. We then delve deeper into how resilience can be improved in general.

Aotearoa New Zealand's risk profile

Aotearoa New Zealand has more risks from natural disasters than most high-income countries. The scale of this risk is significant – the natural disasters risk is second only to Bangladesh (see Figure 5.11). The estimated annual loss from natural disasters is 0.66% of GDP, or approximately $2.34 billion. Our small size adds to the impact of these risks. Japan, for example, faces a similar risk from natural hazards as Aotearoa New Zealand but its significantly larger economic base means the impact on GDP is lower.

Figure 5.11: Aotearoa New Zealand's high exposure to natural hazards drives one of the highest rates of expected insurance losses in the world



Source: Lloyds, 2018

Aotearoa New Zealand faces a wide range of risks, some of which are reasonably predictable and are able to be simply mitigated, while others are difficult to predict, both in when they will occur and also in what impact they will have.

Risks that could pose considerable harm to Aotearoa New Zealand are often called HIREs – high-impact, inevitable, rare events – and some of them may even be the ultimate level of unpredictability, 'black swans' or 'unknown unknowns'. New Zealand's National Risk Approach and National Risk Register helps government agencies to take a proactive and coordinated approach to identifying and managing the most significant risks to New Zealand and includes several risks across a broad range of domains including natural hazards, biological hazards, technological hazards, malicious threats and economic crisis.[239]

237 Pew Research Center, 2022.
238 Fookes, 2022.
239 Department of the Prime Minister and Cabinet, 2021.

BOX O: NEW ZEALAND'S UNUSUAL RISK PROFILE

Risks can be **sudden** (like an earthquake) or **slow-onset** (like rising sea levels). They also vary in predictability:

- **Normal risks** – are reasonably predictable in both their timing and impact. It is possible to defend against these risks, for instance, by pre-planning or insurance.
- **HIRE risks** – high impact, inevitable, rare events – are risks that we know about and can somewhat prepare for, but we do not know when they will happen, or exactly what their impact will be. Earthquakes and other tectonic events are classic HIREs.
- **Black swans** – or 'unknown, unknowns' come unexpectedly. There is no prior preparation because no-one expected them to happen.

Compared to most high-income countries, New Zealand, is more exposed to sudden, HIRE risks, particularly those arising from natural hazards. While these are infrequent, they are potentially catastrophic in their impact.

Our knowledge of our risk landscape is always changing, just as the nature of the risks we face change. Even when considerable research has been done, new information can lead a significant re-evaluation of our risk profile. For instance, the 2022 review of the National Seismic Hazard Model found that the new risk assessment was on average, 50% higher than previous modelling.[240] Just one example is the risks from the Alpine Fault, a very fast-moving fault by global standards that has ruptured four times in the last 900 years (in the years 1717, 1620, 1450 and 1100). The probability that it will produce a major quake in the next 50 years has been revised from 29% to 75%, and it is likely that this quake would be of the order of 8.0 on the Richter scale. An earthquake of this magnitude will have a major impact on many people's lives.[241] Better measures of both the level of risk and the likelihood would improve our ability to manage our overall risk profile, including managing new hazards like those associated with climate change.

We also face risks that other countries face, like severe weather events, geopolitical instability and cyber-attacks. In some cases, these risks are exacerbated by our distance from our major trading partners and consequent reliance on international supply chains. This distance has been beneficial in the past to insulate Aotearoa New Zealand from border tensions or interstate conflict, but long supply chains and the rise of cyberwarfare mean that is no longer the insulating factor it was.[242]

Graphic 5.2 illustrates the broad range of risks we face along with historical examples of the types of events that have caused those risks. All of these risks could potentially have significant impacts for Aotearoa New Zealand, such as a rupture of the alpine fault or an outbreak of foot and mouth disease.

240 GNS Science | Te Pū Ao, 2022a.
241 GNS Science | Te Pū Ao, 2021 and 2022b.
242 Ministry of Defence, 2018.

Graphic 5:2: A broad range of risks to New Zealand and examples of their occurrence[243]

243 Created by the Treasury with reference to Gluckman et al., 2021, and OECD, 2018.

What are some of the wellbeing impacts from risks that we face?

In this section we briefly outline three significant risks facing Aotearoa New Zealand, as it is not possible to examine all risks to our future wellbeing in detail. These examples are used to show the broad range of potential impacts on our wellbeing and to support a discussion on creating resilience. The risks covered here are:

- **Climate change and biodiversity loss**. Their impacts will have direct and significant effects on all aspects of Aotearoa New Zealand's wealth. They are also subject to both global and domestic choices about how to mitigate and adapt to the impacts from this risk.
- **Geopolitical risks**. We are experiencing a period of significant change in the international environment and Aotearoa New Zealand is highly reliant on a stable, rules-based international system.
- **Youth educational performance**. There will be long-term consequences of poor outcomes for young people (including through persistent impacts on physical and mental health) and compounding incidence of other significant challenges our young people face.

Risks to our wellbeing from biodiversity loss and climate change

Why is this a risk to our future wellbeing?

Climate change and the loss of biodiversity have far-reaching risks to our wellbeing, in ways we are only beginning to understand. The Intergovernmental Panel on Climate Change has outlined the scale of human-induced changes to the global climate and the expectation that adverse impacts such as flooding, drought and other extreme weather events would continue to increase. For example, global warming of 1.5°c in the near-term is anticipated to cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans.[244]

The risks to wellbeing from biodiversity loss and climate change are significant given the critical role biodiversity and our moderate climate play in providing life supporting services such as drinking water, breathable air, crop pollination and ecosystem integrity. Major losses to our climate and biodiversity also create risks to other wellbeing domains, for example, threatening indigenous species, which are part of cultural practices and from which food, medicine and materials are traditionally derived.

Risks to our biodiversity and climate need to be considered together because of the connected way they support life and wellbeing.[245] The way we utilise our terrestrial, freshwater and marine resources has a direct impact on our climate, and our climate can both intensify issues with these resources (for example, global temperature rise threatens the survival of fish stocks), or support them (for example, a stable climate supports agricultural productivity and natural habitat for indigenous species).

How could this risk impact our future wellbeing?

The impacts on our future wellbeing from climate change and biodiversity loss arise from both direct physical impacts (such as from storms, sea-level rise and the availability of wild food and materials) as well as impacts from the choices that society takes to mitigate and adapt to their effects. Box P below briefly summarises some of these impacts across our wealth. More detail about these impacts can be found in a range of reports.[246]

244 Intergovernmental Panel on Climate Change, 2022.
245 See, for example, the description in Ministry for the Environment, 2019.
246 The Treasury's He Puna Hao Pātiki, 2022 Investment Statement (The Treasury 2022a) considers climate related risks to the Crown's balance sheet and He Tirohanga Mokopuna 2021 (The Treasury 2021), considers the fiscal impacts of climate change. A forthcoming report by the Treasury's will further assess the fiscal and economic impacts of climate change including a range of scenarios and risks.

BOX P: EXAMPLES OF IMPACTS ON OUR WEALTH FROM CLIMATE CHANGE AND BIODIVERSITY LOSS

Physical and financial capital

- Our infrastructure is vulnerable to impacts from climate-related events, such as more droughts, floods and fire, and sea level rise.[247] These events will increase demand on financial capital for repairs and increase insurance costs.
- Choices over how to mitigate and adapt to the impacts of climate change will impact this wealth. For example, the Climate Change Commission estimated that achieving the 2050 climate goals will reduce projected GDP by 1.2% to 2.3% depending on technology and policy choices.[248] We will have to take different choices over, where to live, what crops to grow, where to do business and what type and level of insurance to buy.

Human capability

- Loss of biodiversity and climate change may have negative health implications, such as weaker resistance to disease from a loss of urban biodiversity, less connection to nature, and severe events like heatwaves and floods causing early mortality.[249]
- The loss of our natural environment impacts on our human capability via the link to mental and physical health. For example, people in Aotearoa New Zealand have signalled the key benefits from being outdoors include mental health/wellbeing, health/fitness exercise, and a connection with nature.[250]

Natural environment

- Natural ecosystems will be compromised by a changing climate such as sea-level rise, high temperatures and risks from new and/or more widespread pests and pathogens.[251]
- Actions to adapt to the effects of climate change may compromise biodiversity, for example the construction of infrastructure like coastal defences as well as from the relocation of physical assets such as roads.

Social cohesion

- There is already public concern about our environmental quality, particularly climate change and waste reduction.[252] Social cohesion would be affected by further reduction in our environmental quality if it increases polarisation of views about if and how to respond to its impacts.
- The impacts of mitigating and adapting to climate change pose risks to social cohesion because of the potential for significant distributional impacts around how the costs of mitigating are spread across society, or who pays for the costs of repairing or relocating assets affected by climate change.

247 Ministry for the Environment and Stats NZ, 2020.
248 Climate Change Commission, 2021.
249 Dasgupta, 2021 and Royal Society, 2017.
250 Department of Conservation, 2020a.
251 Department of Conservation, 2020b.
252 Ministry for the Environment, 2022b.

Geopolitical instability

Why is this a risk to future wellbeing?

New Zealand's future wellbeing is at risk from geopolitical tension arising out of competition between major countries and a decline in the rules-based international order, which has been described as the 'slow-balisation' in international connections.[253] Aotearoa New Zealand is particularly exposed to geopolitical risk through our trade channels, which are at risk of becoming increasingly linked to defence and security policy decisions. Furthermore, international conflict, such as the Russian invasion of Ukraine can impact us such as the inflationary impacts we have recently seen.

How could this risk impact our future wellbeing?

There are a range of ways that geo-political instability might play out in future, with different views about the significance and severity of a decoupling between the USA and China in particular. A recent analytical note by Treasury staff assessed that the retreat from globalisation that has been in train in recent years will continue, with many of the economic and political norms that have grown over the last five decades reversing.[254]

On balance, the assessment considered that Aotearoa New Zealand will be faced with a more fractured world, both geopolitically and in terms of economic systems and governance. Such a world is likely to be riskier for policymakers and businesses alike. Globally, trend growth is likely to be lower, with more pressure on inflation and possibly higher interest rates. Financing and/or trade-offs involved in climate change adaptation and mitigation could be more acute. Box Q sets out the range of potential impacts on our aspects of wealth from this risk.

BOX Q: EXAMPLES OF IMPACTS ON OUR WEALTH FROM GEOPOLITICAL INSTABILITY

Physical and financial capital

- Reduced foreign direct investment in Aotearoa New Zealand as international connectedness ebbs.
- Lower export incomes arising from greater trade barriers could leave us less able to afford to invest domestically.
- Disrupted access to critical imports – medicines, fertilisers, machinery parts – that cannot be produced domestically.

Human capability

- Reduced international connections could reduce our access to important skills we acquire through migration[255] although Aotearoa New Zealand may be seen as a safer place to live and more attractive to migrants.

Natural environment

- A more fractured global system risks a greater breakdown of international cooperation on global environmental issues.

Social cohesion

- Social cohesion could be affected by the impacts of foreign interference. Globally, foreign interference is increasing and Aotearoa New Zealand is not immune. Foreign interference occurs in many ways, including by influencing democratic processes, spreading disinformation, and seeking to control or intimidate communities (especially those that whakapapa to foreign states).[256]

253 A phenomenon that involves a slowing down of the pace of global integration, a term popularised by The Economist.
254 Blackmore et al, 2022.
255 New Zealand Productivity Commission, 2022.
256 Department of the Prime Minister and Cabinet, 2022.

Declining youth educational performance

Why is this a risk to our future wellbeing?

Chapter 2 highlighted that we have high levels of adult skills in Aotearoa New Zealand, but we are seeing a decline in educational performance on some key measures. This poses a risk to the wellbeing of the individuals doing less well in school, but also poses a more general risk to the country as a whole. As noted in Chapter 3, while there have been improvements in Māori and Pacific educational achievement over time, persistent performance gaps are a concern not only to these communities but to our wider economic performance as Māori and Pacific peoples will be an increasing share of the workforce in the future. In Chapter 2 we also noted there is also a risk that the educational disruptions caused by COVID-19 could further exacerbate negative achievement trends.

The decline in skill levels matters for the economy because Aotearoa New Zealand's jobs are increasingly focused on the service sector, where high paying jobs require high skills.[257] It also matters because having high skills is the best defence against technological change. Skilled jobs are less likely to be automated and those with existing skills find it easier to pick up new skills if they are needed.[258] A growing proportion of people without the necessary skills to participate in such an economy creates risks to the country through slower economic growth, risks to the individual from changing technology and a dependence on migration to address key skill shortages in an increasingly competitive market. However, low skills have a far wider impact than just on incomes. Low-skilled adults have worse reported health, higher rates of hospitalisation, an increased rate of substance abuse and a higher rate of criminal activity.[259]

How could this risk impact our future wellbeing?

Strong educational performance is a key enabler for a range of wellbeing metrics, at both an individual and whole of society level. Box R sets out the range of potential impacts on our wealth from this risk.

BOX R: EXAMPLES OF IMPACTS ON OUR WEALTH FROM DECLINING YOUTH EDUCATIONAL PERFORMANCE

Physical and financial capital

- Lower levels of educational attainment risk reducing the potential of our economy to develop physical and financial capital. For example, adults with baseline literacy and communication skills are more likely to gain higher qualifications, be employed and have higher incomes that can then support physical and financial capital.[260]

Human capability

- Lower educational achievement directly affects human capability, and declining performance may also affect mobility, economic success, and civic participation.[261]
- Education is also closely related to health status. Across the OECD there is a clear link between higher educational attainment and self-reported health.[262]

Natural environment

- Declining education attainment has the potential to reduce knowledge, concern, and action to improve environmental outcomes. International studies find a link between environmental education and environmental action/concern.[263]

Social cohesion

- Education is the single most important long-term determinant of people's social and economic participation.[264] Education levels predict a wide range of measures of civic and social engagement, including voter turnout and political tolerance, generalised trust, attitudes towards multiculturalism and prejudice.

257 Janssen et al., 2022.
258 OECD, 2016.
259 Meehan, 2022.
260 Ministry of Education, 2022a.
261 Ministry of Education, 2022a.
262 Scott, 2021.
263 Suárez-Perales et al., 2021.
264 Ministry of Social Development, 2020.

The role of resilience in managing risk

The range of risks we face in Aotearoa New Zealand highlights the importance of resilience. Resilience refers to our ability as a society to withstand, bounce back from or adapt to a shock. Resilience is built at all levels of society across multiple types of institution, from national government through to local councils, community organisations, businesses, families and whānau. Shocks can take the form of singular events – such as an earthquake or a pandemic – or they can be slow-moving challenges like a gradual decline in health status or natural resources.

WHAT DO WE MEAN BY 'INSTITUTIONS?'

'Institutions' is shorthand for the rules, norms and roles that determine how a society runs. One of the key institutions is decision-making rights.

Institutions are not just important in an emergency. They also determine whether a country effectively prepares in advance, has a buffer of resources for an emergency, and has systems to protect those who need it.

Different types of risk require different approaches. Reasonably well-known risks can be managed through avoiding exposure (such as not building on flood-prone land) or controlling the impact through preparation (such as ensuring critical infrastructure has redundancy that enables one part to fail without all the system failing). Reasonably predictable risks can often be insured against which reduces the financial impact but not the human impact.

Building resilience is seldom free. Building resilience in the form of investing in wealth as a buffer against potential future adverse events comes at the cost of wellbeing now. For example, higher building standards may increase resilience but also increase the costs of housing and other buildings. Strengthening resilience therefore involves making trade-offs between investing against future risks versus spending on immediate needs. Sometimes these costs are higher than the impact of the risk, and so the best approach is to not build resilience at all but to save against the possibility of disaster. In each case the decision on how, and how much to spend on building resilience, are best taken by the person or agency with the best knowledge of the total situation, and the incentive to pick the best option. If others take the responsibility, there is the risk of creating barriers to opportunities (particularly in business) or moral hazard (where those who benefit from taking the risk push the costs onto the community).

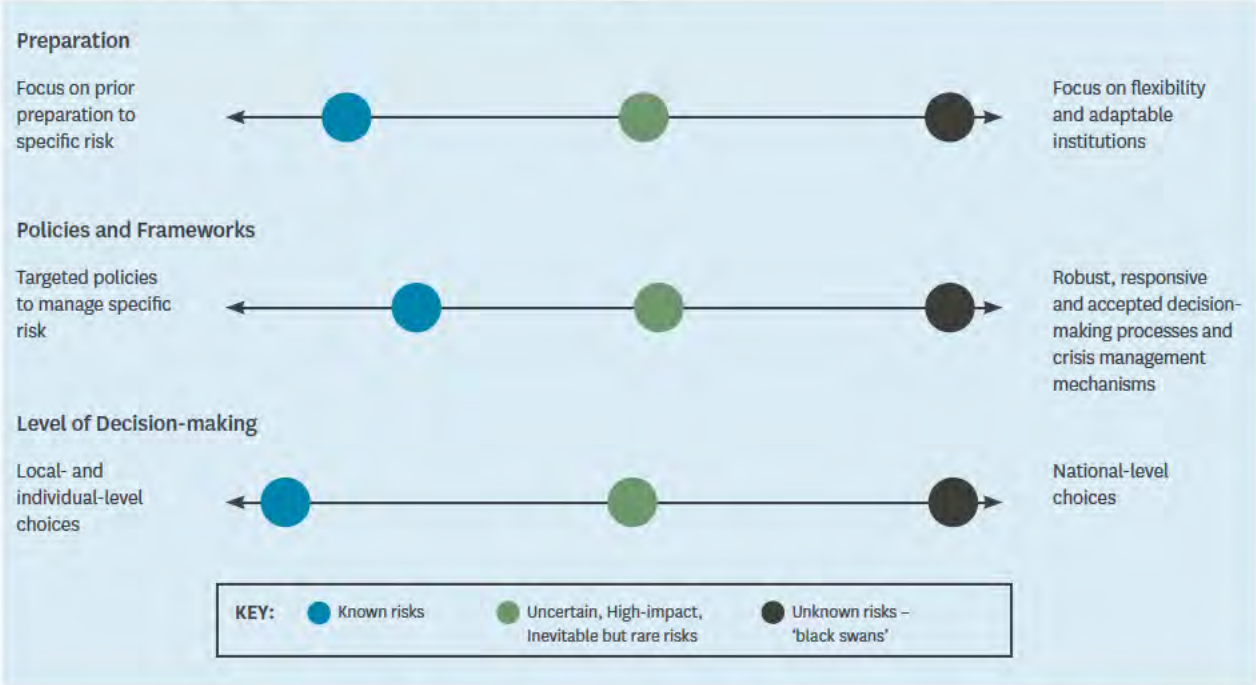
Risk management is more difficult when the risk affects more people, because it is harder to coordinate the response across everyone and galvanise action. Widespread risks can also create opportunity for people to free-ride on others, or for decisions to be made that lead to under-preparation because of the human cognitive bias that 'it won't happen to me'.

Preparation becomes even more difficult if the risk is itself difficult to predict, either in when it will happen or what impact it will have – the HIREs – and it can be almost impossible to be prepared for the black swan 'unknown, unknown' events, that no-one has foreseen. For HIREs and especially for black swans, the best defence is ensuring that there are good decision-making institutions and readily repurposable assets available that can be turned into whatever is needed at the time.[265] Money or the ability to borrow is the ultimate in flexibility as an asset, acting both as a buffer and the most readily repurposable asset there is. In both the Christchurch/Kaikōura earthquakes and the COVID-19 events, New Zealand's resilience was significantly enhanced by the ability of the government to borrow in response, with the rapid raising and deployment of funds enabled by effective institutions directing them in the form and location where they were needed.

The dominance of rare but high-impact risks means there is a greater case to focus on resilience building measures that are adaptable to a range of shocks. Planning and preparation for specific risks is important but will not address all the risks to our wellbeing. Adaptable resilience depends on institutions with capability to plan for shocks, take precautionary and pre-emptive action and follow good decision-making processes when they occur. Resilience is also supported by sufficient stocks of flexible assets (including borrowing capacity) and resources (including human capability) that can be readily leveraged in times of crisis and high levels of trust among people (social cohesion) as well as in institutions. These factors require enhancement and investment over time because their resilience benefits may accrue over quite long timescales. Graphic 5.3 shows how the balance between preparation and adaptation changes, relative to the certainty of the risk and its impacts.

265 Kay & King, 2020.

Graphic 5.3: As risks become less certain, the effective response relies on national decision-making institutions and having flexible resources to meet the challenge



COVID-19 provides a good example. While a pandemic was a known risk, we could not have anticipated when and how COVID-19 emerged. One approach is to build up specific stocks that might help in an emergency. This approach is only useful if the emergency is itself predictable. For instance, many countries found their epidemic preparation was less useful because they expected influenza to be the next major pandemic and had stockpiled medicines like Tamiflu for that, rather than a coronavirus. Another option is to build in redundancy like spare capacity in the health system, but the Global Health Security Index found that this had little impact on death rates. Rather, this study found that it was countries that did well on measures of institutional resilience that had relatively good health outcomes through COVID-19 rather than those that had high levels of pre-pandemic preparation.[266] This is because strong institutions allowed for rapid reactive decisions to be taken to a pandemic that was different from the one that was planned for. This was also one of the lessons that the OECD drew from their review of the response to the Christchurch earthquake.[267]

While the evidence is patchy, it does suggest that different parts of Aotearoa New Zealand society have taken risk management seriously. In particular, some measures suggest the resilience of households is comparatively high. For instance, earthquake insurance for our homes is extremely high (95% in 2014) compared to other regions with high natural hazard risk, such as Japan (27%) and California (10%) and a much lower proportion of households lacked an adequate financial buffer (11%) than in the USA (18%).[268] The most recent survey of firms also suggests that most have an organisational risk profile.[269]

Aotearoa New Zealand's decision-making structures that enabled a 'go hard, go early' response, partnerships between central and local government in providing supports, and the ways in which iwi, Māori and Pacific organisations moved quickly to shield and support vulnerable whānau in their communities are all examples of how institutions supported the pandemic response. Flexible regulatory systems that enable fast adoption of new technologies and practices have also been shown to be important.[270]

266 Rose, 2021.
267 OECD, 2017a.
268 The Treasury, 2014.
269 Grant Thornton, 2016.
270 See the background paper to this report, *New Zealand's wellbeing: is it sustainable and what are the risks?* (The Treasury, 2022c).

BOX S: AN EXAMPLE OF RESILIENCE IN A PACIFIC COMMUNITY CONTEXT

Research into the impact of the COVID-19 lockdown on Pacific churches and their role in supporting Pacific communities found that churches and their leaders are key partners in community resilience and recovery, and a key mechanism for developing public policy and delivering services. The influence and authority of Pacific church leaders was a critical aspect to the effective delivery of health and social service supports to at risk families and neighbourhoods, including assisting agencies communicate key messages to local communities and in managing the misinformation being spread through social media.

The COVID-19 vaccination programme provides an example. Church leaders acted as role models by stepping up and getting vaccinated first, and actively encouraged their members to get vaccinated too. Churches were useful sources of information for the community and provided space for vaccinations and testing, facilitated vaccination days, and connected health providers to families.

The ability of Pacific communities to consistently access and utilise local resources to respond to the threat posed by the pandemic to their communities and to the wider New Zealand public demonstrated a high degree of resiliency, innovation and responsiveness across all communities at both regional and national levels. The strength of its social capital investment within communities was clearly apparent throughout this pandemic. The focus of these capabilities have now been redeployed to assist the rebuilding and recovery as demonstrated in the increasing numbers of those in employment.[271]

271 Ministry for Pacific Peoples, 2021.

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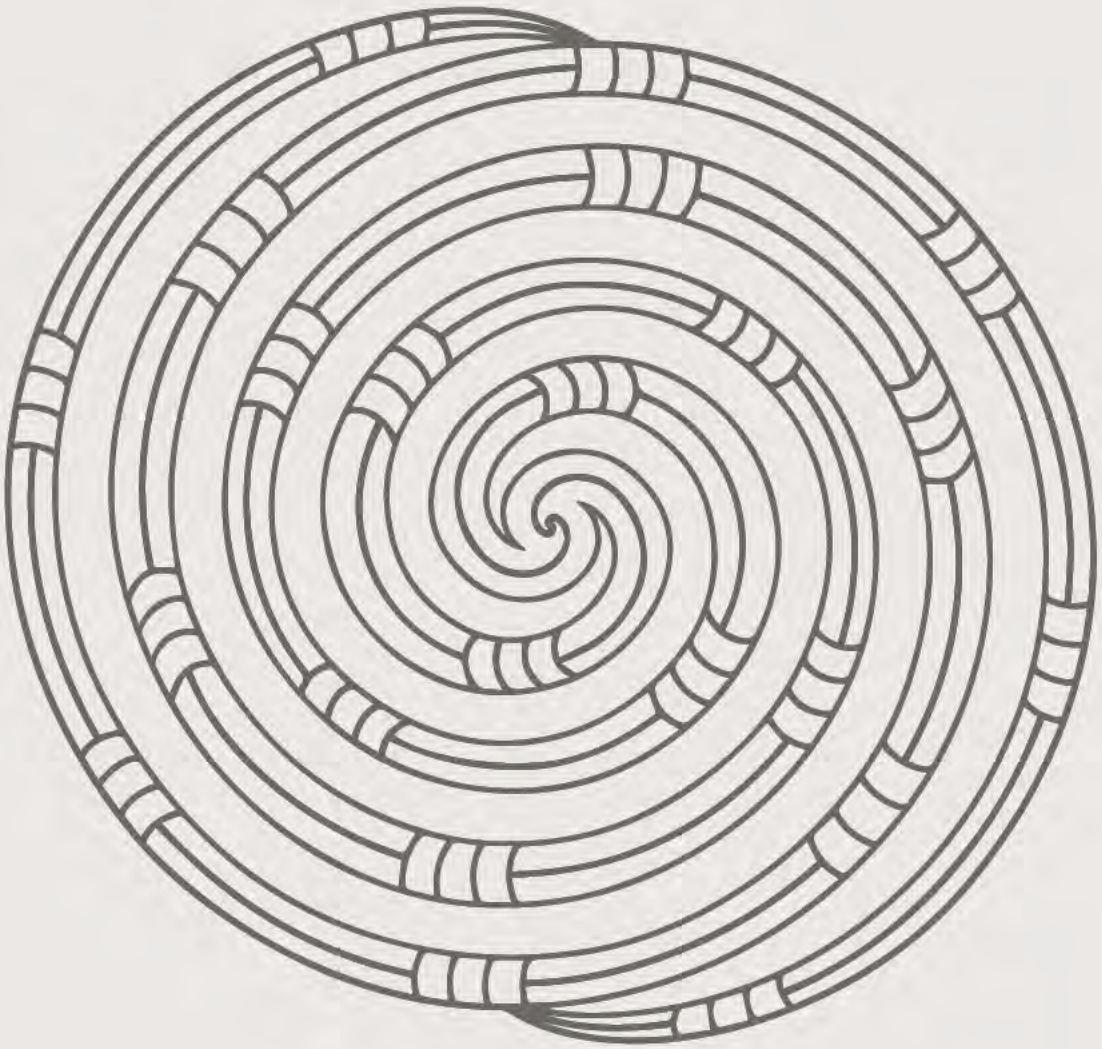
Next steps



CHAPTER 6: NEXT STEPS

This chapter sets out how we hope Te Tai Waiora will be used to support policy processes, and highlights priorities for future research and improvements to data and measurement systems to deepen our understanding of wellbeing in the future. While Te Tai Waiora does not provide policy recommendations, we hope it will support public discussion around the priorities for improving wellbeing in the future.

Te Tai Waiora is the first Wellbeing Report prepared by the Treasury. The report supports our understanding of progress in wellbeing and how sustainable it is likely to be.

Te Tai Waiora provides – in one place – a broad perspective on the range of things that matter for wellbeing. This broad-brush assessment provides an account of where we are doing well as a nation and where we could do better and is a complement to more traditional indicators of progress such as economic growth. This report is about breadth rather than depth. The value of this report is in providing the big-picture context within which more detailed analysis can be undertaken. Te Tai Waiora provides **an evidence base and insights** that aim to support wider discussion and understanding of wellbeing across a range of audiences.

This is a report for Parliament, as required by the Public Finance Act (1989). We hope that the findings and analysis in Te Tai Waiora will stimulate robust public debates about our shared future and the priorities for improving wellbeing in Aotearoa New Zealand.

We anticipate that Te Tai Waiora will also be relevant to academics and researchers, both inside and outside of the public service. It provides insights on the policy questions where further research and analysis would provide valuable insights for future policy development. These questions are complex and require insights and action across the system. We hope other agencies and researchers will also progress these issues.

Integrating wellbeing into policy

Te Tai Waiora is part of our wider work to consider the broader impacts of policy advice in a systematic and evidenced way. As we highlighted in Chapter 1, it is good economics and good policy to think broadly about outcomes, to consider how things will play out over the longer term and to provide analysis on how policies will affect people differently.

Te Tai Waiora is another step along this path. As a stocktake of wellbeing in Aotearoa New Zealand, the findings in Te Tai Waiora will provide context for Treasury advice and inform our engagement with other agencies. As the Government's lead economic and financial advisor, it will inform high-level advice we provide to the Government on its economic strategy and on its spending and **investment priorities, including through the Budget**.

We recognise that many of the issues identified in Te Tai Waiora are not new. Challenges such as declining mental health and educational performance are long-standing and complex issues that the public system has been grappling with for many years. There are no easy answers. However, making significant progress is likely to require shifts in how we work as government agencies. There is scope to strengthen our policy capability, to collaborate more and to be more systematic in analysing and evaluation our impact.

Firstly, as a public system, we need to **more systematically ensure our advice is thinking broadly, long term and about distributional impacts**. The Treasury uses two wellbeing frameworks, the Living Standards Framework and He Ara Waiora, to support us in this endeavour. Te Tai Waiora provides another example of the use of these frameworks in practice and the value of exploring wellbeing through different lenses. We continue to develop our capability in the Treasury to use both frameworks and to use He Ara Waiora authentically. We have mainly used He Ara Waiora in this report to explore the wellbeing of Māori. However, we recognise that te ao Māori wellbeing frameworks have wider relevance to the wellbeing of other people in Aotearoa New Zealand. The Treasury's ambition is to increasingly apply He Ara Waiora alongside the Living Standards Framework in our stewardship reports, and policy and budget advice.

Secondly, given the inter-related nature of the challenges we face in improving outcomes for our people, **the public system will need to continue to strengthen the way we work together** if we are to change the direction of these persistent trends. We hope that by providing a stocktake of wellbeing in Aotearoa New Zealand, Te Tai Waiora will help agencies to see where they fit into the bigger picture and highlight the priority areas for collaboration.

Last but not least, we need to continue to **get better at learning about 'what works' and evolving our systems to deliver better over time**. To do this well, ex ante evidence for policy effectiveness must be accompanied by **ex post evaluation** of policy impact if we are to ensure value for money from the investments made. Strengthening evaluation across the system is critical to learning what works in making progress on the complex challenges that Te Tai Waiora has highlighted.

As a central agency, the Treasury has a role to play in supporting these shifts alongside other central agencies. In our public finance system, which the Treasury is responsible for managing, this will require us to shift towards managing for wellbeing outcomes as well as dollars, multi-year funding arrangements in place of annual budgets, cross-agency collaboration beyond narrow agency appropriations, and deep consideration of baselines as well as incremental activity.

Informing priorities for data and measurement systems

The availability of quality data is also critical to understanding progress in Aotearoa New Zealand. We have made use of data from a wide range of sources in developing the analysis in Te Tai Waiora, including the LSF Dashboard. The LSF Dashboard provides a range of indicators to measure the concepts in the LSF, and a refreshed Dashboard was released in 2021. Work is currently underway with Te Puni Kōkiri to confirm **bespoke indicators to support He Ara Waiora**, and we expect to be able to use these in future Wellbeing Reports. In the meantime, we have drawn on a range of available data complemented by qualitative evidence from rangatira interviews.

In pulling together data across a broad spectrum, we have identified areas where more data would open up more opportunities for analysis. We hope this report is useful for informing future priorities for enhancing data on different dimensions of wellbeing.

Priority areas for improving wellbeing data include **unpaid work and leisure, shared care and 'modern family' statistics, rainbow communities and disabled people**. We also need data to support measurement of **cultural capability and belonging**. Like many countries, data on the **distribution of wealth** is more limited than data for income and consumption, particularly at the top end of the distribution.

Another priority would be increasing the collection of data that allows us to examine wellbeing at the level of **local communities**, zoom in on **the wellbeing of small groups** (such as a particular Pacific or Asian ethnicity), and allow for **comparisons across time and between groups**.[273]

The future of wellbeing has been a focus of this report, particularly exploring what we know about the state of the wealth we are building to support future wellbeing. This analysis has highlighted the need for action to **refine measures and valuations of wealth**, in order to understand whether our wealth is increasing over time and what that means for the sustainability of our wellbeing.

The estimates we have for the wealth of the natural environment tend to be backward-looking. Developing an **assessment of the future risks for the natural environment's contribution to wellbeing** would require developing the investment framework, data collection and application of the valuation over time to build up robust trends.[274]

Work to strengthen our wealth measures would enable more analysis of **the relative role of different aspects of wealth in supporting our wellbeing** and the extent to which **different aspects of wealth can be substituted** to support wellbeing. We also need to improve our understanding of how close we might be to **hard environmental limits** and explore the role that **innovation** can play in enabling us to more effectively use our wealth to generate and sustain wellbeing.

Deepening our understanding of wellbeing

The issues around capital measurement highlight that better data and measurement will open up further opportunities for research and analysis on the state of wellbeing in Aotearoa New Zealand. But even with the existing data there may be further opportunities for extending the analysis of wellbeing.

Te Tai Waiora points to potential drivers of low wellbeing (including low mental health and low income) and identifies areas where Aotearoa New Zealand needs to lift its performance (mental health, educational performance and housing). This descriptive work can be developed further by analysis to understand the **causal relationships that affect wellbeing – both now and into the future**. Better understanding the drivers of and connections between different dimensions of wellbeing will inform the development of policy responses that can deliver real changes in outcomes.

The analysis in Te Tai Waiora has also strengthened our understanding of how outcomes differ across different people in Aotearoa New Zealand. Te Tai Waiora presents evidence that differences in life satisfaction between people are driven by a combination of factors, which can interact, sometimes in unexpected ways. Understanding the **interconnections between different areas of wellbeing and how these differ for different people** will ultimately inform more effective and better-targeted policy interventions for those demographic groups who tend to have poorer outcomes. The growing availability of data and development of modelling techniques open up exciting opportunities to better understand these differences and how they change over peoples' life course.

A key emerging theme in Te Tai Waiora is the **divergent experience of younger people relative to older cohorts**. These generational differences will disproportionately impact on some groups in Aotearoa New Zealand, given that Māori and Pacific peoples are younger on average than the rest of the population. This, combined with other major trends such as climate change, biodiversity loss and higher public debt – raise big questions for intergenerational equity. More work is needed to better understand these intergenerational issues and to develop frameworks, tools and institutions to ensure inter-generational equity is considered in policy advice.

273 For more details on the Data Investment Plan, see https://www.data.govt.nz/leadership/data-investment-plan/
274 NZIER, 2022.

Te Tai Waiora also recognises that interpreting differences across people, and the implications for policy, does require normative judgements. While those normative judgements ultimately lie with politicians, policy advisors can use normative frameworks to help politicians work through these judgements in a systematic way. There is scope for further work to develop **guidance or toolkits for the analysis of distribution and equity** as part of the policy process.

The complexity of these issues suggests that solutions do not lie with governments alone. This was reinforced by the important role that iwi and community groups played during COVID-19. The recent refresh of the Living Standards Framework added a new layer of 'Our Institutions and Governance', in recognition of the role that markets, whānau, civil society organisations and other institutions play in lifting wellbeing. The Treasury would welcome work that furthers our understanding of **the role of different institutional spheres in addressing the challenges identified in Te Tai Waiora**.

The range and complexity of these issues highlight opportunities for future research and analysis. In the same way that we drew on wider expertise in developing this report, the deep expertise for understanding and addressing these issues often lies outside the Treasury, in sector agencies and with other experts. It will require insights and research from a range of organisations and disciplines to deepen our understanding of wellbeing in Aotearoa New Zealand, and the opportunities for governments to improve outcomes for the diverse range of people living in Aotearoa New Zealand. We hope that Te Tai Waiora will stimulate this further research, as well as a broader public discussion on what we value, and where we see the priorities for improving the wellbeing of all who live in Aotearoa New Zealand.

Piki te kaha	Gather your strength
Piki te ora	Increase your wellbeing
Piki te wairua	Revitalise your inner spirit
Hui e, tāiki e!	We are in agreeance, it is affirmed!

ANNEX 1: LIVING STANDARDS FRAMEWORK DASHBOARD INDICATORS

LSF Indicators: Our Individual and Collective Wellbeing

TREND	DOMAIN	UNITS	LATEST INDICATOR
	Cultural capability and belonging	% of adults who said it was easy or very easy to express their identity in New Zealand	80.0%
	Cultural capability and belonging	% of people who have participated in at least one art form in the last 12 months	52.0%
	Cultural capability and belonging	% of Māori adults who feel strongly connected with their ancestral marae	64.6%
	Cultural capability and belonging	Average number of languages spoken	1.22
No trend available	Cultural capability and belonging	% of adults with a score of 7/10 or higher for sense of belonging to NZ	88.2%
	Cultural capability and belonging	% of people who can converse about a lot of everyday things in te reo Māori	4.0%
No trend available	Engagement and voice	% of people aged 16-65 who agree they have a say in what the Government does	41.8%
	Engagement and voice	% of people who say the public has some or large influence on the decisions their council makes	31.0%
	Engagement and voice	% of enrolled electors who voted in the general election	81.5%
	Engagement and voice	% of enrolled voters who voted in the contested mayoral elections	42.2%
No trend available	Environmental amenity	% of adults who said it was very easy to get to their nearest park or green space	66.5%
	Environmental amenity	% of people served with drinking water that met all treatment management standards	78.0%
	Environmental amenity	Prevalence of agricultural drought	22
	Environmental amenity	Restricted annual activity days due to illness resulting from exposure to human-made PM10 pollution	32
	Environmental amenity	% of people who rated the “overall state of the natural environment in New Zealand” as very good or good	39.2%
No trend available	Environmental amenity	% of state of the environment monitored river sites in each of the E.coli attribute bands	No data
	Family and friends	% of adults who reported that, if they urgently needed a place to stay, it would be easy or very easy to ask someone they know	69.4%

LSF Indicators: Our Individual and Collective Wellbeing

TREND	DOMAIN	UNITS	LATEST INDICATOR
	Family and friends	% of adults who had face-to-face contact with friends who do not live with them at least once a week	69.6%
	Family and friends	% of adults who felt lonely at least some of the time in the last four weeks	17.6%
	Family and friends	% of adults who report they have friends or relatives they can count on in times of trouble	94.6%
	Health	% of adults reporting good, very good or excellent health	88.0%
	Health	Life expectancy at birth	82.3 years
	Health	% of adults with high or very high levels of psychological distress	9.6%
	Health	Deaths caused by intentional self-harm, age-standardised rate per 100,000 people	12.1
	Health	% of children with unmet need for primary healthcare	17.4%
	Housing	% of people living in a crowded house	10.8%
	Housing	% of households with housing costs greater than 30% of income	30.1%
No trend available	Housing	% of adults reporting major repairs needed	4.7%
	Income, consumption and wealth	% of children living in households experiencing material hardship	11.0%
	Income, consumption and wealth	Average real weekly household expenditure	$1,174
	Income, consumption and wealth	Median real equivalised household income after taxes and transfers, and before housing costs	$43,903
	Income, consumption and wealth	% of adults who report they do not have enough money to meet everyday needs	8.8%
	Income, consumption and wealth	% of children aged under 15 living in households where food sometimes or often runs out	14.9%
	Income, consumption and wealth	Average household net worth	$991,432
	Knowledge and skills	Programme for International Student Assessment (PISA) mean score for reading, mathematics and science	503
	Knowledge and skills	% of adults aged 25 and over with a Bachelor's degree or higher qualification	31.1%
	Knowledge and skills	% of adults aged 25 and over with at least an upper secondary education (equivalent to NCEA Level 2)	66.5%

LSF Indicators: Our Individual and Collective Wellbeing

TREND	DOMAIN	UNITS	LATEST INDICATOR
	Knowledge and skills	% of school students attending regularly	59.7%
	Leisure and play	Average hours per day devoted to free time and personal care (eg, sleeping, eating, personal hygiene) by people aged 12 and over	16.5
	Leisure and play	% of adults participating in play, active recreation and sport each week	72.0%
	Leisure and play	% of adults who are “very satisfied” or “satisfied” with their work-life balance	75.7%
No single trend available	Safety	All fatal, non-fatal and serious injuries, age-standardised rates for children aged 0-14	No data
	Safety	% of adults who were victims of family violence in the past year	1.7%
	Safety	% of adults who feel safe when walking alone in their neighbourhood after dark	59.6%
	Safety	Deaths caused by assault, age-standardised rates per 100,000 people	0.800
	Safety	Number of road accident deaths	320
	Safety	Number of work-related injury claims per 1,000 full-time equivalent employees (FTEs)	90.0
	Subjective wellbeing	% of adults with a score of 7/10 or higher for life satisfaction	81.1%
	Subjective wellbeing	% of adults with a score of 7/10 or higher for feeling that life is worthwhile	85.2%
	Work, care and volunteering	% of adults aged 15 years and over who are employed	68.1%
	Work, care and volunteering	Median hourly earnings for wage and salary employees aged 15 years and over	$29.66
	Work, care and volunteering	% of the labour force who are unemployed	3.8%
	Work, care and volunteering	Average hours per day spent doing unpaid work (for own household, other household or an organisation)	3.5
No trend available	Work, care and volunteering	% of adults who reported having done voluntary work in the previous four weeks	50.7%
	Work, care and volunteering	% of young people aged 15–24 years who are not in employment, education or training (NEET)	11.9%

LSF Indicators: Our Institutions and Governance

TREND	SPHERE	UNITS	LATEST INDICATOR
	Central and local government	Net core Crown debt as a % of GDP	30.1%
	Central and local government	Corruption perception index score, on a scale from 0 (highly corrupt) to 100 (very clean)	88
	Central and local government	% of adults who, overall, trust the public service	61.0%
	Civil society	Operating surplus for the non-profit sector as a proportion of income	10.2%
No trend available	Civil society	% of adults who reported having done voluntary work in the previous four weeks	50.7%
	Families and households	% of adults with a score of 7/10 or higher for family wellbeing	81.4%
	Families and households	Household debt as a % of household net disposable income	122.3%
	Firms and markets	Net % of firms expecting an improvement in their own trading activity over the coming quarter	12.5%
	Firms and markets	Total capital ratio of locally incorporated banks in New Zealand	16.3%
	Firms and markets	Sum of the annual rates of enterprise birth and enterprise death	23.00
	Firms and markets	Annual % growth in multifactor productivity	0.8%
	Firms and markets	Investment in research and development (R&D) as a % of GDP	1.2%
	International connections	Total direct investment in New Zealand businesses by entities based in other countries	$130,884.4 million
	International connections	Total direct investment by New Zealand businesses in entities based in other countries	$29,450.6 million
	International connections	The ratio between the index of export prices and the index of import prices	105.20
	International connections	The ratio between total trade and GDP	44.30
	Whānau, hapū and iwi	% of Māori adults who feel strongly connected with their ancestral marae	64.6%
No trend available	Whānau, hapū and iwi	% of Māori rating whānau wellbeing as 7/10 or higher	73.6%

LSF Indicators: The Wealth of Aotearoa New Zealand

TREND	SPHERE	UNITS	LATEST INDICATOR
	Financial and physical capital	Annual % change in the annual creation or acquisition of produced assets	7.90%
	Financial and physical capital	Net intangible fixed assets per capita	$8,000
	Financial and physical capital	Net international investment position as a % of GDP	-50.80%
	Financial and physical capital	Net fixed assets per capita	$144,700
	Human capability	Programme for International Student Assessment (PISA) mean score for reading, mathematics and science	503
	Human capability	% of adults aged 25-64 with at least an upper secondary education	80.90%
	Human capability	Number of years an infant under 1 year old can expect to live in good health	69.6 years
	Human capability	Health loss caused by non-communicable diseases, measured in disability-adjusted life years (DALYs) per 100,000 people	22600 DALYs per 100,000 people
	Human capability	% of people who can converse about a lot of everyday things in te reo Māori	4.00%
	Natural environment	Annual national average temperature	13.7 degrees
No trend available	Natural environment	% of assessed indigenous species classified as threatened with or at risk of extinction	77.20%
	Natural environment	Annual mean coastal sea-level rise relative to a 1986-2005 baseline period	9.06 cm
	Natural environment	Total allowable commercial catch	591,000 tonnes
	Natural environment	Volume of groundwater stocks	752 billion cubic metres
	Natural environment	Net greenhouse gas emissions in kilotonnes of CO2 equivalent	54,900
	Natural environment	Renewable energy as a percent of total primary energy supply	40.30%
No single trend available	Natural environment	% of state of the environment monitored river sites in each of the Macroinvertebrate Community Index attribute bands	
	Natural environment	% of tested sites within targets for at least six of the seven types of soil test	64.20%
	Natural environment	Volume of total timber resources, including both timber available and unavailable for supply	4480 million cubic metres

LSF Indicators: The Wealth of Aotearoa New Zealand

TREND	SPHERE	UNITS	LATEST INDICATOR
	Social cohesion	% of adults who said it was easy or very easy to express their identity in New Zealand	83.80%
	Social cohesion	% of adults who experienced discrimination in the past 12 months in New Zealand	17.40%
No trend available	Social cohesion	% of adults with a score of 7/10 or higher for sense of belonging to New Zealand	88.50%
	Social cohesion	% of adults with a score of 7/10 or higher for trust in other people in New Zealand	65.90%

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