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Incomes and Costs for Example Families in 2022

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Disclaimer

The views and interpretations in this report are those of the authors and are not the official position of the Ministry of Social Development.

Some results are based on the information produced by the Ministry of Social Development's Effective Marginal Tax Rate model at a specific point of time, and therefore may be subject to change in the future due to revisions to the model.

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Executive Summary

The Welfare Expert Advisory Group (WEAG) was established in 2018 to provide the government with recommendations for the future of New Zealand's income support system. As part of the group's work, they investigated the adequacy of incomes, relative to costs, for example families using the income support system as at mid-2018 (WEAG, 2019).

The purpose of this report is to follow the same methodology as WEAG (2019), with updated costs and income information, to investigate the adequacy of incomes in April 2022. This allows us to explore whether income adequacy improved following changes to the income support system since 2018.

Incomes and costs are again calculated for six example families¹ of different types. Several different work and housing scenarios are considered for each family. The work scenarios include the adults not working, working part time, or working full time. The housing scenarios include living in public housing, private rental housing, or shared rental housing.

Consistent with WEAG (2019), two levels of assumed costs are included: a 'core level' with core living costs (for example, rent, power, food and transport) that are needed to 'just get by' without borrowing, and a 'participation level' that allows for some relatively minimal participation spending (for example, playing a sport and cheap presents for family) in addition to core living costs. Both levels of costs were compared to the family's income in each scenario.

Key findings

Income adequacy has improved since 2018 for all example families

Incomes increased more than costs from mid-2018 to April 2022.

Before-Housing-Costs (BHC) incomes increased by around \$150 - \$160 for single person example families and by \$190 - \$300 for example families with children. These increases were primarily the result of recent policy changes, including increases to main benefits, Working for Families, and the minimum wage. Example families also received more income through the Accommodation Supplement, as higher housing costs flowed through to higher calculated payments.

Some of the gains from income support policy changes have been offset by increased living costs, which have recently seen higher than usual increases. From mid-2018 to April 2022, the largest driver of increased costs for the example families was an increase in rent – those living on their own in private dwellings saw rent increases of between \$90 and \$110. Other living costs increased by smaller amounts – generally by around \$10-\$20 per person in total.

Across all scenarios, however, families' incomes increased more than their costs, indicating a general improvement in adequacy over the past four years. As a result, all example families saw a reduction in the level of their income deficits, or an increase in

¹For simplicity, the term 'family' in this report includes one person households.

their income surplus relative to costs, and some shifted from deficit to surplus. Sole parents with young children had the greatest improvement in income adequacy. Both sole parent example families included in the analysis saw particularly large gains in income because they had a child under 3 years old – this meant they received an additional \$65 a week through the Best Start payment.

Incomes remain below the level needed to meet core costs for most example families when on benefit

When supported by benefit, most families' incomes were below the level needed to cover core costs, unless they were living in public or shared housing.

The example families that were single people without children could not cover their core costs, except when living in public housing or working full time.

The person working full time could cover participation costs as well as core costs. As in 2018, the largest deficits were for people receiving Jobseeker Support and renting, with smaller deficits for those receiving the Supported Living Payment or sharing accommodation.

Couples had the largest deficits of all family types and could only meet core costs when one or both parents were working.

Couples on benefit were \$136 below the point where they could meet core costs, and \$277 below the point where they could meet participation costs. When in work they could cover core costs, but their income was well below participation costs.

Sole parent families could meet core costs in most scenarios and participation costs when working.

Only the sole parent with three children example family could not cover core costs when on benefit and living in private housing. Both sole parent example families could meet participation costs when working or living in shared or public housing.

Living in public housing or shared housing improved the adequacy of a family's income, in both April 2022 and mid-2018.

One of the key findings of WEAG (2019) was that living in public housing or sharing accommodation significantly contributed to improving income adequacy. Our analysis showed that this is still the case in 2022.

Families living in public housing receive a higher rate of accommodation assistance, through the Income Related Rent Subsidy, and do not have to pay for water. As a result, the example person receiving the Supported Living Payment was \$53 better off in public housing compared to private housing and the example sole parent with three children was \$145 better off compared to private housing.

Families living in shared housing benefit from lower rent and shared household expenses. As a result, the example single person receiving Jobseeker Support-Work Ready was around \$40 better off when living in shared housing compared to private housing and the example sole parent with one child was around \$70 better off compared to private housing.

Our findings are consistent with MSD's recent working paper on total incomes.

MSD recently published a working paper on the total weekly incomes for main benefit clients as at the end of April 2022 (MSD, 2022), which showed that average income levels for beneficiaries in 2022 were notably higher than in previous years, even after accounting for housing costs and recent inflation. Overall, people's total incomes after housing costs were, on average, 43% higher in real terms in 2022 than in 2018.

When comparing after-housing-cost income by family type, families with children were found to have higher average incomes than those without, sole parents were better off than couples, and incomes for single people were notably lower than average. This remained the case even after adjusting incomes for family size and composition.

Our analysis provides further evidence to suggest that for different family types, the differences in income are more than the differences in costs, which reflects differences in the adequacy of incomes across family types.

After-housing-costs incomes of families supported by a benefit continue to be below after-housing-cost poverty lines

The incomes needed to cover core and participation costs are around the same level as current after-housing-costs measures of poverty.

To meet core living costs when living in private housing, the example family's income needed to be around 40% of the median after-housing-cost income. To meet participation costs, their income needed to be between 45% and 55% of the median after-housing-cost income.

One common poverty threshold is 50 percent of median after-housing-cost income. The incomes of those receiving benefits were below this poverty threshold.

When the after-housing-cost equivalised income of those on benefit was compared with the median after-housing-cost income, example families with children were at 37% of the median (for the couple on Jobseeker Support -Work Ready) and 41% (for both sole parent example families) – this had improved from 2018, when they were at 29% and 38% respectively. Single people without children were well below the median and ranged from 28% (the JSS recipient) to 34% (the Supported Living Payment recipient). This had improved from 2018, when they were at 22% and 28% respectively.

Working families were all above 50 percent of the median after-housing-cost income, except for the single person working part time.

When the after-housing-cost equivalised income of those in work was compared with the median after-housing-cost income, example families with children were at 51-80% of the median. This has improved from mid-2018 when they were at 45-70% of the median.

The single person without children working full time was at 67% of the median, the same as in mid-2018. The single person without children working part time was only at 38% of the median, an increase from 35% in mid-2018.

Table 1: Incomes, costs (including childcare), surplus/deficit, and changes since mid-2018 for example families

Family type	Benefit ² /Work	Housing	Income	Costs		Difference between income and costs (surplus/deficit)		Change in the difference between income and costs (mid 2018 to April 2022)	
				Core	Participation	Core	Participation	Core	Participation
Single person	Benefit (SLP)	Public	\$669	\$666	\$705	\$3	-\$36	\$57	\$56
	Benefit (SLP)	Private	\$621	\$672	\$711	-\$50	-\$90	\$48	\$47
Single person	Benefit (JS-HCD)	Private	\$583	\$672	\$711	-\$88	-\$128	\$48	\$46
	Part time work (20hrs), JS-HCD		\$651	\$718	\$757	-\$67	-\$106	\$35	\$34
Single person	Benefit (JS-WR)	Private	\$583	\$661	\$700	-\$78	-\$117	\$48	\$47
	Work (40hrs)		\$848	\$728	\$768	\$119	\$80	\$39	\$38
	Benefit (JS-WR)	Private sharing	\$408	\$446	\$485	-\$37	-\$77	\$57	\$55
Sole parent, one child (2 yrs)	Benefit (SPS)	Private	\$882	\$868	\$930	\$14	-\$48	\$65	\$64
	Work (20hrs)		\$1,126	\$956	\$1,019	\$169	\$107	\$151	\$150
	Work (40hrs)		\$1,203	\$998	\$1,060	\$205	\$143	\$147	\$146
	Benefit (SPS)	Private sharing	\$819	\$735	\$797	\$85	\$22	\$91	\$88
Sole parent, three children (2,5,8 yrs)	Benefit (SPS)	Public	\$1,293	\$1,152	\$1,266	\$141	\$27	\$164	\$164
	Benefit (SPS)	Private	\$1,160	\$1,164	\$1,278	-\$4	-\$118	\$137	\$137
	Work (20hrs)		\$1,404	\$1,238	\$1,353	\$165	\$51	\$222	\$222
	Work (40hrs)		\$1,481	\$1,282	\$1,397	\$198	\$84	\$197	\$197
Couple, two children (10,15 yrs)	Benefit (JS-WR)	Private	\$1,123	\$1,259	\$1,400	-\$136	-\$277	\$94	\$79
	Work (40hrs)		\$1,321	\$1,303	\$1,444	\$17	-\$124	\$71	\$56
	Work (40+20hrs)		\$1,487	\$1,439	\$1,580	\$48	-\$93	\$60	\$44
	Benefit (JS-WR)	Private (high cost)	\$1,163	\$1,299	\$1,440	-\$136	-\$277	\$94	\$79

² SLP = Supported Living Payment, JS-HCD = Jobseeker Support–Health Condition and Disability, JS-WR = Jobseeker Support-Work Ready, SPS = Sole Parent Support.

Introduction

In May 2018 the New Zealand government established the Welfare Expert Advisory Group (WEAG) to provide advice on the country's income support system. The group prepared several background papers about the system and a final report detailing recommendations for improving the system. One of the background papers prepared by the group compared costs and incomes for six example families using the income support system. The aim was to determine whether these families' incomes were adequate to cover their expenses in different work and housing circumstances. Income support payments were from mid-2018 and reflected the impacts of the Families Package (which largely came into force on 1 July 2018).

Since 2018, there have been several changes made to the income support system as part of the government's focus on lifting incomes for low- and middle-income families, and in response to the COVID-19 pandemic. Most notably, main benefit rates were increased by \$25 a week in 2020, and a further \$20 a week in 2021, and by \$20 to \$42 per adult per week on 1 April 2022.

Fairer Future (2022) updated the WEAG (2019) scenarios for example families where the adults were not working. Fairer Future's analysis was based on April 2022 payment rates. The family's total costs, taken from WEAG (2019), were adjusted for inflation.

The analysis presented in this report extends WEAG (2019) and Fairer Futures (2022). We updated all scenarios developed by WEAG (2019), using updated real costs where possible to investigate the adequacy of incomes in April 2022. Based on this example family analysis, we examined whether income adequacy has improved following changes to the income support system since 2018.

Methodology

Example families

The families and scenarios are consistent with those used by WEAG (2019). They were selected for that study to be broadly representative of families receiving income support.

The following example families are used:

1. a single person without children receiving the Supported Living Payment (SLP)
2. a single person without children receiving Jobseeker Support – Health Condition or Disability (JS-HCD)
3. a single person without children receiving Jobseeker Support – Work Ready (JS-WR)
4. a sole parent with one child receiving Sole Parent Support (SPS)
5. a sole parent with three children receiving SPS
6. a couple with two children receiving JS-WR.

Different work situation scenarios are examined, such as when the adults are not working, working part time, and working full time. Different housing situations for the families are also examined. These include living in public housing, living in private

housing, living in shared private housing (referred to as shared housing), and living in high-cost private housing (referred to as high-cost housing).

The families are assumed to be renting and living in Manurewa (South Auckland) in all scenarios. Being in Auckland, Manurewa has relatively high housing costs compared to some other areas in New Zealand. It is also in Accommodation Supplement Area 1, which means the maximum level of Accommodation Supplement families can receive is higher than in other areas. Therefore, our results may not reflect income adequacy for families living in other areas of New Zealand.³

Incomes

For the purposes of this report, it is assumed that families took up all income support payments that they were eligible for, had no cash assets or savings, and had no debt.

Income support rates are as of 1 April 2022, and an hourly wage of \$22.70 is assumed for all hours worked. This is \$1.50 above the minimum wage as of 1 April 2022, consistent with the pay rate assumed by WEAG (2019).

The families' sources of income examined include:

- wages
- main benefit payments
- Working for Families tax credits (including the Family Tax Credit, In-Work Tax Credit, Minimum Family Tax Credit, and Best Start tax credit)
- Independent Earner Tax Credit
- Accommodation Supplement (AS) or Income-Related Rent subsidy⁴
- Winter Energy Payment (averaged over the year)
- Temporary Additional Support.

In some scenarios Childcare Assistance is also included in the analysis. It is not included as income because it is paid directly to the childcare provider.

Weekly after-tax incomes are calculated using MSD's Effective Marginal Tax Rate model.

Costs

This paper does not revisit the original decisions around the costs included in the example budgets used by WEAG (2019). Instead, it aims to update those same costs for changes in prices in the intervening period.

Consistent with the previous approach, two levels of assumed costs are included: a 'core level' with core living costs that are needed to 'just get by' without borrowing, and a 'participation level' that includes core living costs and allows for some relatively minimal participation spending. Table 2 details the costs included in each level.

³ WEAG (2019) and Arnesen (2022) demonstrated that locations where example families are assumed to live can have some impact on their after-housing-costs income and the adequacy of their income when living in private housing, particularly when they are working and eligible for less Accommodation Supplement and Temporary Additional Support. Families in public housing do not have the same kinds of differences in income adequacy between regions, because the income related rent subsidy (IRRS) ensures that families pay no more than 25% of their income in rent.

⁴ IRRS is paid directly to the housing provider rather than the recipient. We have included it as income for consistency with WEAG (2019).

Table 2: Core and participation costs

Core living costs	Participation costs
<ul style="list-style-type: none"> • Rent • Electricity/gas/water • Food • Phone and broadband • Clothes/shoes • Medical costs • Dental costs • Transport costs • Bank fees • Insurance (contents, car) • Personal care • Household contents and services • School costs • Childcare costs 	<ul style="list-style-type: none"> • Sports/fitness costs • Activities or cultural events for adults • Activities or cultural events for children • Presents for immediate family and a few friends • Transport costs for two holidays a year to visit family or friends • Small contingency for unexpected expenses • Small personal allowances

Where updated cost information is available, costs are calculated using the same methodology as WEAG (2019). Where updated information is not available, the costs assumed by WEAG (2019) are adjusted for inflation according to specific components of the Beneficiary Household Living-Cost Price Index (BHLPI)⁵ or Consumer Price Index (CPI)⁶, depending on which component better matched the cost type. Consistent with the original approach taken by WEAG (2019), we use MBIE tenancy bond data on lower quartile rents.

This approach to updating costs is taken to provide as accurate a picture as possible of current costs for families in April 2022. A detailed description of how each cost is calculated can be found in Appendix 1.

Limitations

WEAG (2019) raised several limitations with their analysis. These limitations also apply to the analysis presented in this report.

The main limitation is that the analysis only covers a particular set of families and circumstances, meaning that the families do not represent all users of the income support system. In reality, families' circumstances are complex and varied. For example, families may have higher or lower housing costs or have no costs at all if they are living with friends, family, or whānau. Some families might have savings to fall back on when their income is not sufficient. Some families may have debts they are paying off that will decrease the adequacy of their income.

Our analysis does not account for the sharing of resources in larger families, or within or across households. Resource sharing would lower costs and improve the adequacy of a family's incomes. For example, children may share toys or receive clothing handed down from older siblings, friends, extended family, or whānau, while we have assumed individual costs per child. Couples may also share household goods between them, which is not accounted for in our analysis. In addition, families may lower their transport costs

⁵ <https://www.stats.govt.nz/information-releases/household-living-costs-price-indexes-march-2022-quarter/>

⁶ <https://www.stats.govt.nz/indicators/consumers-price-index-cpi/>

by sharing rides to activities, whereas we have assumed individual transport costs for each activity a family member goes to. The couple with two children example family is the most likely to be impacted by the lack of sharing assumed in our analysis. This means their income deficits may be overestimated and surpluses underestimated.

Some families may have significant medical costs for ongoing disabilities or health conditions, but these costs have not been accounted for in our analysis. Families with ongoing medical costs related to a health condition or disability would be eligible for a Disability Allowance while on a low income. Disability Allowance is not paid at a set rate. It is paid at the same rate as the recipient's regular medical costs, up to a maximum amount. Because medical costs vary greatly, Disability Allowance has not been included in families' incomes. The two single person example families with a disability or health condition have higher medical costs included in their budgets to reflect more trips to the doctor and additional prescriptions. However, this does not reflect all the additional costs that people with health conditions and disabilities may face, meaning estimates of their deficits may be underestimated and surpluses overestimated.

Like WEAG (2019), this analysis assumes that formal paid childcare is required for all hours the parents are at work. However, some families use informal childcare through family and friends, or a combination of formal and informal care. Families with access to free informal childcare would be better off as their income gains would be offset less by childcare costs.

Finally, when comparing deficits and surpluses in April 2022 and mid-2018, we do not adjust the original 2018 differences for inflation. This is to allow ease of comparison with the WEAG (2019) and Fairer Future (2022) estimates. If 2018 differences were adjusted for inflation, this would not impact the key findings, but reductions in deficits from mid-2018 to April 2022 would be greater and increases in surpluses from mid-2018 to April 2022 smaller, than what is reported in this paper.

Single person families

Family 1: A person without children receiving the Supported Living Payment

Family 1 is a person who does not have a partner or children. They are receiving SLP as their main source of income because they have a permanent and/or severe health condition or disability that means that they are unlikely to be able to work regularly for the long term. Their income and costs are compared when living in public versus private housing.

Table 3: Deficits and surpluses of weekly income compared to expenditure for Family 1

Housing	Public	Private
Hours of work	0hrs	
Income	\$669	\$621
Total core living costs	\$666	\$672
Difference between income and core costs (surplus/deficit)	\$3	-\$50
Change in the difference between income and core costs (mid-2018 to April 2022)	\$57	\$48
Total living costs with participation costs	\$705	\$711
Difference between income and participation costs (surplus/deficit)	-\$36	-\$90
Change in the difference between income and participation costs (mid-2018 to April 2022)	\$56	\$47

When living in public housing and not working...

This person's income covered their core living costs but not participation costs. They had a \$3 income surplus after core costs and a \$36 deficit after participation costs.

From mid-2018 to April 2022, they moved from having an income deficit after core costs to a surplus, and their deficit after participation costs decreased. This is because the increase in their income was \$57 more than the increase in their core costs, and \$56 more than the increase in their costs with participation costs included.

When living in private housing and not working...

This person's income did not cover their core living costs. They had a \$50 deficit after core costs and a \$90 deficit after participation costs. When living in private housing, the gap between their income and costs was \$53 larger than when they were living in public housing. This reflects that the Income Related Rent Subsidy for people in public housing is paid at a higher rate than Accommodation Supplement for people in private housing.

From mid-2018 to April 2022, their income deficits decreased. This is because the increase in their income was \$48 more than the increase in their core costs, and \$47 more than the increase in their costs with participation costs included.

Family 2: A person without children receiving Jobseeker Support – Health Condition or Disability

Family 2 is a person who does not have a partner or children. They are receiving JS-HCD as their main source of income because they have a more temporary and/or less severe health condition or disability that limits their ability to work in the short term. Their income and costs are compared when living in private housing and not working versus working 20 hours a week.

Table 4: Deficits and surpluses of weekly income compared to expenditure for Family 2

Housing	Private	
	0hrs	20hrs
Hours of work		
Total weekly income	\$583	\$651
Total weekly core living costs	\$672	\$718
Difference between income and core costs (surplus/deficit)	-\$88	-\$67
Change in the difference between income and core costs (mid-2018 to April 2022)	\$48	\$35
Total living costs with participation costs	\$711	\$757
Difference between income and participation costs (surplus/deficit)	-\$128	-\$106
Change in the difference between income and participation costs (mid-2018 to April 2022)	\$46	\$34

When living in private housing and not working...

This person's income did not cover their core living costs. They had a deficit of \$88 after core living costs and \$128 after participation costs.

From mid-2018 to April 2022, their income deficits decreased. This is because the increase in their income was \$48 more than the increase in their core costs and \$46 more than the increase in their participation costs.

When living in private housing and working 20 hours a week...

This person's income did not cover their core living costs. They had a deficit of \$67 after core costs and \$106 after participation costs.

From mid-2018 to April 2022, their income deficits decreased. This is because the increase in their income was \$35 more than the increase in their core costs and \$34 more than the increase in their participation costs.

Family 3: A person without children receiving Jobseeker Support – Work Ready

Family 3 is a person who does not have a partner or children and is receiving JS–WR because they are unemployed and searching for work. We compare their income and costs when living in private housing and not working versus working 40 hours a week. We also compare their income and costs when living in private shared housing and not working.

Table 5: Deficits and surpluses of weekly income compared to expenditure for Family 3

Housing	Private		Shared
	0hrs	40hrs ⁷	0hrs
Total weekly income	\$583	\$848	\$408
Total weekly core living costs	\$661	\$728	\$446
Difference between income and core costs (surplus/deficit)	-\$78	\$119	-\$37
Change in the difference between income and core costs (mid-2018 to April 2022)	\$48	\$39	\$57
Total living costs with participation costs	\$700	\$768	\$485
Difference between income and participation costs (surplus/deficit)	-\$117	\$80	-\$77
Change in the difference between income and participation costs (mid-2018 to April 2022)	\$47	\$38	\$55

When living in private housing and not working...

This person's income did not cover their core living costs. They had a \$78 deficit after core living costs and a \$117 deficit after participation costs.

From mid-2018 to April 2022, their income deficits decreased. This is because the increase in their income was \$48 more than the increase in their core costs, and \$47 more than the increase in their participation costs.

When living in shared housing and not working...

This person's income did not cover their core living costs. They had a \$37 deficit after core living costs and a \$77 deficit after participation costs.

Their income deficits were around \$40 smaller when living in shared housing compared to private housing, reflecting cheaper rent and shared household expenses.

From mid-2018 to April 2022, their income deficits decreased. The increase in their income was \$57 more than the increase in their core costs, and \$55 more than the increase in their costs with participation costs included.

⁷ At 40 hours of work this person has moved off benefit

When living in private housing and working 40 hours a week...

This person's income covered core and participation costs. They had a \$119 income surplus after core living costs and a \$80 surplus after participation costs.

From mid-2018 to April 2022, their surplus income increased. This is because their income increased by \$39 more than the increase in their core costs and \$38 more than the increase in their costs with participation costs included.

Families with children

Family 4: A sole parent with one child receiving Sole Parent Support

Family 4 is made up of one sole parent and their 2-year-old child. The sole parent is receiving SPS. We compare their income and costs when living in private housing and not working, working 20 hours a week, or working 40 hours a week. We also compare their income and costs when living in shared private housing and not working.

Table 6: Deficits and surpluses of weekly income compared to expenditure for Family 4

Housing	Private			Shared
	0hrs	20hrs ⁸	40hrs	0hrs
Hours of work				
Total weekly income	\$882	\$1,126	\$1,203	\$819
Total weekly core living costs	\$868	\$930	\$961	\$735
Difference between income and core costs before childcare costs (surplus/deficit)	\$14	\$195	\$241	\$85
Difference between income and core costs after childcare costs⁹ (surplus/deficit)	\$14	\$169	\$205	\$85
Change in the difference between income and core costs after childcare (mid-2018 to April 2022)	\$65	\$151	\$147	\$91
Total weekly costs with participation costs	\$930	\$993	\$1,024	\$797
Difference between income and participation costs before childcare costs (surplus/deficit)	-\$48	\$133	\$179	\$22
Difference between income and participation costs after childcare costs (surplus/deficit)	-\$48	\$107	\$143	\$22
Change in the difference between income and participation costs after childcare (mid-2018 to April 2022)	\$64	\$150	\$146	\$88

When living in private housing and not working...

This family's income covered their core living costs, but not participation costs. They had \$14 surplus income after core costs but a \$48 deficit after participation costs.

From mid-2018 to April 2022, they moved from an income deficit to a surplus after core costs and their deficit after participation costs decreased. The increase in their income was \$65 greater than the increase in their core costs, and \$64 greater than the increase in costs with participation costs included.

⁸ At 20 hours of work the sole parent has moved off benefit

⁹ Childcare costs are the remaining costs after childcare subsidy's

When living in private housing and working 20 hours a week...

This family's income covered their core and participation costs. They had \$169 surplus income after core costs and \$107 surplus after participation costs, including childcare costs.

From mid-2018 to April 2022, their income surplus increased. Their income increased by \$151 more than the increase in their core costs and \$150 more than the increase in costs with participation costs included, including childcare costs.

When living in private housing and working 40 hours a week...

This family's income covered their core and participation costs. They had a \$205 surplus after core living costs, and \$143 surplus after participation costs.

Their income surplus increased from mid-2018 to April 2022. Their income increased by \$147 more than the increase in their core costs (including childcare costs) and \$146 more than the increase in costs after participation costs (including childcare costs).

When living in shared housing and not working...

This family's income covered their core and participation costs. They had \$85 surplus income after core living costs and \$22 surplus after participation costs.

Their income surplus was around \$70 higher than when they were living in private housing, because their rent and household costs were lower when shared.

In mid-2018, they had income deficits at both cost levels. These have moved to surpluses in April 2022. The difference between their income and costs increased by \$91 with core costs and \$88 with participation costs included.

Family 5: A sole parent with three children receiving Sole Parent Support

Family 5 is made up of a sole parent, a 2-year-old, a 5-year-old, and an 8-year-old. The sole parent is receiving SPS. Their income and costs are compared when living in public housing and not working, living in private housing and not working, living in private housing and working 20 hours a week, and living in private housing and working 40 hours a week.

Table 7: Deficits and surpluses of weekly income compared to expenditure for Family 5

Housing	Public	Private		
		0hrs	20hrs ¹⁰	40hrs
Total weekly income	\$1,293	\$1,160	\$1,404	\$1,481
Total weekly core living costs	\$1,152	\$1,164	\$1,219	\$1,279
Difference between income and core costs before childcare costs (surplus/deficit)	\$141	-\$4	\$185	\$202
Difference between income and core costs after childcare costs (surplus/deficit)	\$141	-\$4	\$165	\$198
Change in the difference between income and core costs after childcare (mid-2018 to April 2022)	\$164	\$137	\$222	\$197
Total weekly costs with participation costs	\$1,266	\$1,278	\$1,333	\$1,393
Difference between income and participation costs before childcare costs (surplus/deficit)	\$27	-\$118	\$71	\$88
Difference between income and participation costs after childcare costs (surplus/deficit)	\$27	-\$118	\$51	\$84
Change in the difference between income and participation costs after childcare (mid-2018 to April 2022)	\$164	\$137	\$222	\$197

When living in public housing and not working...

This family's income covered their core and participation costs. They had a \$141 surplus after core living costs and a \$27 surplus after participation costs.

In mid-2018, they had income deficits at both cost levels, these have moved to surpluses in April 2022. The increase in their income was \$164 greater than the increase in their core costs, and \$164 greater than the increase in their participation costs.

¹⁰ At 20 hours of work the sole parent has moved off benefit

When living in private housing and not working...

This family's income did not cover their core living costs. They had a \$4 deficit after core costs and a \$118 deficit after participation costs.

There was a \$145 difference between their deficit in private housing and their surplus in public housing. This is because public housing tenants receive a higher rate of accommodation assistance through the Income Related Rent Subsidy and do not have to pay for water.

From mid-2018 to April 2022, their income deficits decreased. The increase in their income was \$137 greater than the increases in their core costs and costs with participation costs included.

When living in private housing and working 20 hours a week...

This family's income covered their core and participation costs. They had \$165 surplus income after core living costs and \$51 surplus income after participation costs, including childcare costs.

In mid-2018, they had income deficits at both cost levels, these have moved to surpluses in April 2022. The increase in their income was \$222 greater than the increases in the costs at both levels.

When living in private housing and working 40 hours a week...

This family's income covered their core and participation costs. They had \$198 surplus after core living costs and \$84 surplus after participation costs, including childcare costs.

From mid-2018 to April 2022, their surplus after core costs has increased and they have moved from a deficit after participation costs to a surplus. Their income increased by \$197 more than the increase in their core costs and costs after participation costs, including childcare costs.

Family 6: A couple with two children receiving Jobseeker Support-Work Ready

Family 6 is made up of two working-age adults and their 10- and 15-year-old children. They are receiving JS-WR when both unemployed. Their income and costs are compared when they are living in private housing and not working, have one parent working 40 hours a week, and have both parents working (one 40 hours a week and the other 20 hours). An additional scenario has them living in high-cost private housing and both not working.

Table 8: Deficits and surpluses of weekly income compared to expenditure for Family 6

Housing	Private			High cost
	0hrs	40hrs	40+20hrs ¹¹	0hrs
Total weekly income	\$1,123	\$1,321	\$1,487	\$1,163
Total weekly core living costs	\$1,259	\$1,303	\$1,439	\$1,299
Difference between income and core costs (surplus/deficit)	-\$136	\$17	\$48	-\$136
Change in the difference between income and core costs (mid-2018 to April 2022)	\$94	\$71	\$60	\$94
Total living costs with participation costs	\$1,400	\$1,444	\$1,580	\$1,440
Difference between income and participation costs (surplus/deficit)	-\$277	-\$124	-\$93	-\$277
Change in the difference between income and participation costs (mid-2018 to April 2022)	\$79	\$56	\$44	\$79

When living in private housing and not working...

This family's income did not cover their core living costs. They had a \$136 income deficit after core living costs and a \$277 deficit after participation costs.

From mid-2018 to April 2022, their income deficits decreased. Their income increased by \$94 more than the increase in their core costs and \$79 more than the increase in their costs with participation costs included.

When living in private housing with one parent working 40 hours a week...

This family's income covered core living costs but not participation costs. They had a \$17 income surplus after core costs and a \$124 deficit after participation costs.

Compared to not working, the family was \$153 a week better off, after accounting for increased work-related expenses.

From mid-2018 to April 2022, their deficit after core costs moved to a surplus and their deficit after participation decreased. The increase in their income was \$71

¹¹ At 40 hours of work, this couple has moved off benefit

more than the increase in their core costs and \$56 more than the increase in their participation costs.

When living in private housing with one parent working 40 hours and the other working 20 hours a week...

This family's income covered core living costs but not participation costs. They had a \$48 surplus after core costs and a \$93 deficit after participation costs.

From mid-2018 to April 2022, their deficit after core costs moved to a surplus and their deficit after participation decreased. The increase in their income was \$60 more than the increase in their core costs and \$44 more than the increase in their costs with participation costs included.

This family does not have any childcare costs, even when both parents are working, because the children are older (10 and 15 years).

When living in high-cost housing and not working...

This family's income did not cover their core living costs. They had a \$136 income deficit after core living costs and a \$277 deficit after participation costs.

From mid-2018 to April 2022, their income deficits decreased. Their income increased by \$94 more than the increase in their core costs and \$79 more than the increase in their costs with participation costs included.

The income deficits, and change from mid-2018 to April 2022, were the same in this scenario as when the family lived in standard-cost private housing. This is because their Accommodation Supplement and Temporary Additional Support payments increased to cover the difference in rent for high-cost housing.

Sensitivity of results to alternative approaches to updating costs

To explore the impact of taking alternative approaches to updating costs, we compare our approach to:

- adjusting all costs including rents for movement in the headline CPI
- adjusting all costs including rents for movement in the BHLPI
- a hybrid approach using real 2022 lower quartile rents for housing costs, real 2022 costs for childcare, and adjusting all other living costs using BHLPI.

Relative to these approaches, the core method we used to update costs had a significant impact on both estimated incomes and costs, resulting in differences in the size of families' income surpluses or deficits after costs. Surpluses or deficits shifted by \$20-\$70, depending on the family.

The different methods resulted in different estimates for overall living costs, largely driven by housing costs. When tenancy bond data (market rent) was used, estimates of rental costs were much higher than when they were simply adjusted using the CPI or BHLPI. For other living costs, however, the core method resulted in slightly lower increases in costs than the CPI or BHLPI approaches. Specifically, increases in costs for food and energy were lower, and under the main paper approach costs for some consumer items such as clothing and personal care decreased in nominal terms between mid-2018 and April 2022.

Table 9 shows how the costs change depending on the method used for two family types: a single Jobseeker Support recipient and a Sole Parent Support recipient with three children.

Table 9: Change in costs from mid-2018 to April 2022 using different methods for two family types

	Single person, JS-WR, Private Rental				Sole parent, three children (2,5,8 yrs), SPS, Private Rental			
	CPI	HLPI ben	Main paper	Hybrid	CPI	HLPI ben	Main paper	Hybrid
Rent	\$36	\$37	\$100	\$100	\$59	\$59	\$110	\$110
Energy / Water	\$5	\$5	\$1	\$5	\$10	\$10	\$3	\$10
Food	\$8	\$8	\$5	\$8	\$25	\$25	\$6	\$25
Phone and broadband	\$3	\$3	-\$6	\$3	\$3	\$3	-\$6	\$3
Clothes / shoes	\$1	\$1	-\$1	\$1	\$5	\$5	-\$5	\$5
Medical	\$1	\$1	\$1	\$1	\$1	\$1	\$0	\$1
Dental	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1
School costs	\$0	\$0	\$0	\$0	\$5	\$5	-\$1	\$5
Transport costs	\$7	\$7	\$7	\$7	\$10	\$10	\$14	\$10
Bank fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Insurance	\$3	\$3	\$4	\$3	\$3	\$3	\$4	\$3
Personal care	\$1	\$1	-\$1	\$1	\$3	\$3	-\$3	\$3
Household contents and services	\$2	\$2	\$2	\$2	\$5	\$5	\$5	\$5
Sports/Fitness	\$2	\$2	\$2	\$2	\$4	\$4	\$4	\$4
Activities for adults	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1
Activities for children	\$0	\$0	\$0	\$0	\$2	\$2	\$1	\$2
Presents	\$0	\$0	\$1	\$0	\$0	\$0	\$0	\$0
Holidays	\$1	\$1	-\$4	\$1	\$3	\$3	-\$10	\$3
Contingency	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1
Personal allowances	\$1	\$1	\$1	\$1	\$3	\$3	\$3	\$3

As shown in Table 10, the main paper approach resulted in smaller deficits in most scenarios than the alternative approaches, driven by lower non-housing costs. While overall costs were higher due to higher housing costs, incomes were also higher for many families because they became eligible for increased Accommodation Supplement or Temporary Additional Support payments, or a higher rate of Income Related Rent Subsidy which compensated for their higher housing costs.

When adjusting costs by BHLPI or CPI our results were consistent with Fairer Future (2022) for the families in comparable scenarios.¹² Surpluses and deficits varied by \$0-\$3 due to rounding and small differences in the inflation rate used.

¹² The sole parent families were not comparable due to different payment rates of Best Start and SPS used by Fairer Future (2022).

Table 10: Incomes, costs, and surpluses/deficits using different methods

Family type	Benefit/Work	Housing	Total income ¹³				Cost: participation level				Surplus/deficit (participation level)			
			CPI	BHLPI	Main paper	Hybrid	CPI	BHLPI	Main paper	Hybrid	CPI	BHLPI	Main paper	Hybrid
Single person	Benefit (SLP)	Public	\$605	\$605	\$669	\$669	\$667	\$668	\$705	\$731	-\$62	-\$63	-\$36	-\$62
	Benefit (SLP)	Private	\$557	\$557	\$621	\$621	\$672	\$673	\$711	\$736	-\$115	-\$116	-\$90	-\$115
Single person	Benefit (JS-HCD)	Private	\$526	\$526	\$583	\$583	\$672	\$673	\$711	\$736	-\$146	-\$147	-\$128	-\$153
	Work (20hrs), JS-HCD		\$651	\$651	\$651	\$651	\$723	\$724	\$757	\$787	-\$72	-\$73	-\$106	-\$136
Single person	Benefit (JS-WR)	Private	\$526	\$526	\$583	\$583	\$661	\$662	\$700	\$725	-\$135	-\$136	-\$117	-\$142
	Work (40hrs)		\$848	\$848	\$848	\$848	\$735	\$736	\$768	\$799	\$113	\$112	\$80	\$49
	Benefit (JS-WR)	Sharing	\$411	\$411	\$408	\$445	\$501	\$501	\$485	\$492	-\$90	-\$91	-\$77	-\$47
Sole parent, one child (2 yrs)	Benefit (SPS)	Private	\$855	\$855	\$882	\$882	\$902	\$903	\$930	\$954	-\$47	-\$48	-\$48	-\$72
	Work (20hrs)		\$1099	\$1099	\$1126	\$1126	\$957	\$958	\$1019	\$1009	\$60	\$58	\$107	\$91
	Work (40hrs)		\$1176	\$1175	\$1203	\$1203	\$991	\$992	\$1060	\$1042	\$107	\$105	\$143	\$124
	Benefit (SPS)	Sharing	\$745	\$745	\$819	\$751	\$702	\$703	\$797	\$808	\$43	\$42	\$22	-\$57
Sole parent, three children (2,5,8 yrs)	Benefit (SPS)	Public	\$1242	\$1242	\$1293	\$1293	\$1282	\$1283	\$1266	\$1334	-\$40	-\$42	\$27	-\$40
	Benefit (SPS)	Private	\$1126	\$1126	\$1160	\$1160	\$1293	\$1295	\$1278	\$1345	-\$167	-\$168	-\$118	-\$185
	Work (20hrs)		\$1370	\$1370	\$1404	\$1404	\$1354	\$1356	\$1353	\$1407	-\$60	-\$84	\$51	-\$23
	Work (40hrs)		\$1447	\$1446	\$1481	\$1481	\$1420	\$1422	\$1397	\$1473	\$8	-\$18	\$84	\$4
Couple, two children (10,15 yrs)	Benefit (JS-WR)	Private	\$1072	\$1071	\$1123	\$1123	\$1378	\$1380	\$1400	\$1431	-\$306	-\$309	-\$277	-\$308
	Work (40hrs)		\$1286	\$1285	\$1321	\$1321	\$1440	\$1441	\$1444	\$1492	-\$154	-\$157	-\$124	-\$171
	Work (40+20hrs)		\$1451	\$1451	\$1487	\$1487	\$1567	\$1569	\$1580	\$1620	-\$117	-\$118	-\$93	-\$133
	Benefit (JS-WR)	Private (high)	\$1139	\$1154	\$1163	\$1163	\$1446	\$1448	\$1440	\$1471	-\$307	-\$294	-\$277	-\$308

¹³ Incomes are lower under the CPI and BHLPI methods because they receive less accommodation assistance due to their rent costs being lower

Comparing incomes and costs with poverty thresholds

We compared the incomes of example families and their core and participation costs with the median household income in New Zealand, as was done by WEAG (2019).

Comparisons to the median household income show how close the example families are to commonly used poverty lines and what percent of the median income they would need to meet core and participation costs.

The example families' incomes were equivalised (adjusted for household size and composition) using the OECD modified equivalence scale so that comparisons could be made across different households.

For the 2022 Before-Housing-Costs (BHC) and After-Housing-Costs (AHC) measures, the median income was based on the median Household Equivalised Disposable Income (HEDI) for the year ended June 2021 released by Stats NZ (Stats NZ, 2022) and adjusted by the average annual change in HEDI to estimate a 2022 median. For the AHC fixed line measure, the 2017/18 measure was adjusted by the change in the HLPI Lowest Income Quintile, as consistent with Stats NZ methodology.

Table 11: 2021 HEDI and growth assumption used to calculate a 2022 HEDI estimate

	2021 HEDI (Stats NZ)	Growth assumption*	2022 HEDI estimate used
BHC HEDI: Contemporary Person-centred Median	\$43,903	4.0%	\$45,675
AHC HEDI: Contemporary Person-centred Median	\$34,191	4.2%	\$35,629

*based on average change in Stats NZ HEDI Median 2011-2021

	2017/18 HEDI (Stats NZ)	Growth in HLPI Q1	2022 HEDI estimate used
AHC HEDI: 2017/18 Person Centred Median, HLPI	\$29,405	19.2%	\$32,285

Incomes for those supported by benefits remain below the AHC50 poverty threshold

Table 12 shows where the incomes of the example families sit in 2022, once equivalised and expressed as a percentage of median income. It also shows the distance in dollar terms between their income and common thresholds used to measure low-income poverty.

Incomes for all example families supported by a benefit were closer to the median AHC income in April 2022 than they were in mid-2018 but still below 50 percent of the median AHC income (the AHC50 threshold). Some example families' incomes were less than 40 percent of the median (the AHC40 threshold)¹⁴.

¹⁴ The after-housing-cost low-income measures in this paper all employ a 'moving line' threshold, which means they are set in relation to the median estimated for the 2022 year. As a result, they are not equivalent to the

When supported by a benefit, not in work, and living in private housing:

- single person example families receiving JS-HD or JS-WR improved from 22% of the AHC median in mid-2018 to 28% in April 2022
- the single person example family receiving SPS improved from 28% of the AHC median in mid-2018 to 34% in April 2022
- the sole parent example families improved from 37% and 38% of the AHC median in mid-2018 to 44% and 45% in April 2022
- the couple with children example family receiving JS-WR improved from 29% of the AHC median in mid-2018 to 38% in April 2022.

When in work and living in private housing:

- the single person example family without children working part time improved from 35% of the AHC median in mid-2018 to 38% in April 2022
- the single person example family without children working full time remained at 67% of the AHC median, the same as in mid-2018
- the sole parent example families improved from 56-70% of the AHC median in mid-2018 to 63-80% in April 2022
- the couple with children example family improved from 45-57% of the AHC median in mid-2018 to 51-63% in April 2022.

AHC incomes are our primary focus because there are significant differences between BHC and AHC incomes in different areas of New Zealand, driven by differences in housing costs and housing assistance. Because our example families are based in Manurewa, and their income includes the relatively high levels of housing assistance required there, even those supported by benefits are generally well above common BHC poverty thresholds (50% and 60% of the median) in the scenarios examined. When comparing AHC incomes, the incomes of families supported by benefits are substantially lower.

For completeness, table 12 also shows the incomes of example families relative to the 2017//18 AHC median, and the distance from the threshold for the AHC50 fixed line measure used in the Child Poverty Reduction Act 2018. As is to be expected, results are similar to those using a contemporary AHC median, but beneficiary incomes are closer to the poverty threshold.

after-housing measure in the Child Poverty Reduction Act, which has a 'fixed line' threshold based on the median in 2017/18

Table 12: Comparison of equivalised income for example families compared with median incomes and poverty thresholds

Family type	Benefit/Work	Housing	April 2022 BHC income (equivalised)	% of 21/22 median BHC HEDI	Distance above/below 21/22 BHC50	April 2022 AHC income (equivalised)	% of 21/22 median AHC HEDI	Distance above/below 21/22 AHC50	% of 17/18 AHC median	Distance above/below 17/18 AHC50
Single person	Benefit (SLP)	Public	\$669	76%	\$229	\$279	41%	-\$64	45%	-\$32
	Benefit (SLP)	Private	\$621	71%	\$182	\$231	34%	-\$111	37%	-\$79
Single person	Benefit (JS-HCD)	Private	\$583	66%	\$144	\$193	28%	-\$149	31%	-\$117
	Work (20hrs), Benefit (JS-HCD)		\$651	74%	\$212	\$261	38%	-\$82	42%	-\$50
Single person	Benefit (JS-WR)	Private	\$583	66%	\$144	\$193	28%	-\$149	31%	-\$117
	Work (40hrs)		\$848	97%	\$408	\$458	67%	\$115	74%	\$147
	Benefit (JS-WR)	Private sharing	\$408	46%	-\$31	\$215	31%	-\$128	35%	-\$95
Sole parent, one child (2 yrs)	Benefit (SPS)	Private	\$679	77%	\$311	\$302	44%	-\$53	49%	-\$11
	Work (20hrs)		\$866	99%	\$555	\$489	71%	\$190	79%	\$232
	Work (40hrs)		\$925	105%	\$632	\$548	80%	\$267	88%	\$309
	Benefit (SPS)	Private sharing	\$630	72%	\$248	\$333	49%	-\$13	54%	\$29
Sole parent, three children (2,5,8 yrs)	Benefit (SPS)	Public	\$681	78%	\$459	\$376	55%	\$63	60%	\$124
	Benefit (SPS)	Private	\$611	70%	\$326	\$306	45%	-\$70	49%	-\$9
	Work (20hrs)		\$739	84%	\$569	\$434	63%	\$173	70%	\$234
	Work (40hrs)		\$779	89%	\$646	\$474	69%	\$250	76%	\$311
Couple, two children (10,15 yrs)	Benefit (JS-WR)	Private	\$535	61%	\$201	\$259	38%	-\$176	42%	-\$109
	Work (40hrs)		\$629	72%	\$398	\$353	51%	\$21	57%	\$89
	Work (40+20hrs)		\$708	81%	\$564	\$432	63%	\$187	70%	\$255
	Benefit (JS-WR)	Private (high cost)	\$554	63%	\$241	\$259	38%	-\$176	42%	-\$109

The incomes needed to cover core and participation costs levels are near AHC poverty thresholds

Table 13 below shows the percentage of the median income needed to cover core and participation costs. Analysis by WEAG (2019) showed that the incomes needed to meet core and participation costs were at or below AHC poverty measures. Similarly, our example family analysis showed:

- to meet core costs when receiving a benefit, single people in private housing needed 40-41% of the AHC median income, and families with children in private housing needed 42-47% of the AHC median income
- to meet participation costs when receiving a benefit, single people in private housing needed 45-47% of the AHC median income, and families with children in private housing needed 45%-55% of the AHC median income.

Working families have additional costs associated with employment. In our example family analysis those with a full-time single earner required 49-54% of the median AHC to meet core costs and 55-62% to meet participation costs. For the couple with two earners, 60% of the median AHC was required to meet core costs and 69% to meet participation costs.

Table 13: April 2022 core costs and participation costs compared to 2021/22 median BHC and AHC incomes

Family type	Benefit/Work	Housing	Core costs as % of median BHC HEDI	Participation costs as % of median BHC HEDI	Core costs as % of median AHC HEDI	Participation costs % of median AHC HEDI
Single person	Benefit (SLP)	Public	76%	80%	40%	46%
	Benefit (SLP)	Private	76%	81%	41%	47%
Single person	Benefit (JS-HCD)	Private	76%	81%	41%	47%
	Work (20hrs), Benefit (JS-HCD)		82%	86%	48%	54%
Single person	Benefit (JS-WR)	Private	75%	80%	40%	45%
	Work (40hrs)		83%	87%	49%	55%
	Benefit (JS-WR)	Private sharing	51%	55%	37%	43%
Sole parent, one child (2 yrs)	Benefit (SPS)	Private	76%	81%	42%	49%
	Work (20hrs)		81%	87%	49%	56%
	Work (40hrs)		84%	90%	53%	60%
	Benefit (SPS)	Private sharing	64%	70%	39%	46%
Sole parent, three children (2,5,8 yrs)	Benefit (SPS)	Public	69%	76%	44%	53%
	Benefit (SPS)	Private	70%	77%	45%	54%
	Work (20hrs)		73%	80%	49%	58%
	Work (40hrs)		77%	83%	54%	62%
Couple, two children (10,15 yrs)	Benefit (JS-WR)	Private	68%	76%	47%	57%
	Work (40hrs)		71%	78%	50%	60%
	Work (40+20hrs)		78%	86%	60%	69%
	Benefit (JS-WR)	Private (high cost)	70%	78%	47%	57%

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Appendix 1: Budget assumptions

Pay rates

- Employment earnings are assumed to be \$22.70 per hour. This is \$1.50 above the minimum wage, as was the pay rate assumed by with WEAG (2019).

Core costs

Accommodation

- Based on lower quartile market rent in Manurewa as published in March 2022.¹⁵
- Families 1, 2, and 3 rent: lower quartile rent for a 1-bedroom house.
- Family 3 sharing: one third of lower quartile rent for a 3-bedroom house.
- Family 4 private rent: lower quartile rent for a 2-bedroom house.
- Family 4 private sharing: two thirds of lower quarter rent of a 3-bedroom house.
- Family 5 and 6 private rent: lower quartile rent for a 3-bedroom house.
- Family 6 private high cost: median rent for a 3-bedroom house.

Electricity/gas/water

- The costs used by WEAG (2019) have been adjusted to March 2022, using the CPI electricity class inflation rate for energy and the CPI water class inflation rate for water.
- The following method was used by WEAG (2019) and was sourced from the Living Wage Campaign:¹⁶
 - Household energy costs were estimated using the 3-bedroom house annual energy requirements to calculate demand for fuel to heat a 3-bedroom house of 90m² in Auckland.¹⁷
 - This analysis established the energy consumption in kilowatt hours (kWh) required to maintain a 3-bedroom house at a healthy temperature throughout the year and also meet other energy requirements.
 - The costs per m² for Auckland were adjusted for the following household sizes: 1 bedroom (60m²), 2 bedrooms (90m²) and 3 bedrooms (120m²).
 - The cost of that energy was calculated using information available from the Ministry of Business, Innovation & Employment (MBIE) database of residential sales-based electricity costs (year to March 2018, cost per unit of kWh) and rounded to the nearest \$5.
 - A total of \$5 per week was added for water for 1- to 2-person households and \$10 per week for larger households.
 - People in public housing do not pay for water.

¹⁵ https://www.tenancy.govt.nz/rent-bond-and-bills/market-rent/?location=Auckland+-+Manurewa&period=84&action_doSearchValues=Find+Rent

¹⁶ Waldegrave, C. and P. King (2012) Report of an Investigation into Defining a Living Wage for New Zealand. https://familycentre.org.nz/wp-content/uploads/2019/04/Living_Wage_Investigation_Report_2013.pdf

¹⁷ Lloyd, B. (2006). Fuel Poverty in New Zealand. Social Policy Journal of New Zealand (27), 142-155.

Food

- Food costs were based on the University of Otago Food Cost Survey 2021¹⁸ for families living in New Zealand and adjusted for inflation to 2022 using the BHLPI food inflation rate.
- 100% of the basic budget is used for families supported by benefits or in part-time work, which assumes that all foods will be prepared at home.
- 100% of a moderate budget is used for those in full-time work, which allows for an increase in the variety of meats, fish, fruits and vegetables and the inclusion of some convenience foods.
- For adults and teenagers, the average of male and female food costs was used. For children, either costs for their age or the average of the two closest ages was used.

Phone/broadband

- Phone plan: Spark \$19 4-weekly mobile plan per adult and teenager.¹⁹
- Broadband: Spark \$55/month 120gb Spark broadband per household.²⁰

Clothes/shoes

- 60% of average weekly expenditure on clothes and footwear by number of people in household as measured by the Household Economic Survey (HES) in 2019 for families supported by.²¹
- 80% of HES expenditure for those in work.
- Adjusted to March 2022 using the BHLPI inflation rate for clothes and footwear.

Medical

- The following costs from WEAG (2019) have been CPI adjusted to March 2022 using the inflation rate for medical services:
 - An average of \$30 per GP visit for teenagers and adults and an average of 3 GP visits per year per person (Ministry of Health).²²
 - An average of 3 prescriptions per GP visit at \$5 per prescription (PHARMAC 2016).²³
 - One repeat prescription charge (from a GP) per year per adult/teenager at \$20.
 - An additional \$100 per year per adult/teenager for physiotherapy/counselling and other medical care.
 - For recipients of health and disability benefits, the costs are tripled for each adult.
 - Eye test of \$60 and new glasses of \$100 every two years per adult (rounded up to the nearest \$1).

¹⁸ <https://www.otago.ac.nz/humannutrition/research/food-cost-survey/>

¹⁹ <https://www.spark.co.nz/shop/mobile-plans/prepaid.html>

²⁰ <https://www.spark.co.nz/shop/internet/plans.html>

²¹ Household Economic Survey 2019 data sourced from Stats NZ:
http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7552&_qa=2.4825267.148367283.1632274718-572498808.1630540482

²² <https://www.health.govt.nz/nz-health-statistics/health-statistics-and-data-sets/primary-care-data-and-stats>

²³ <https://www.pharmac.govt.nz/assets/annual-report-2015-2016.pdf>

Dental

- Costs as per the 2020 New Zealand Dental Association fee survey²⁴ for one visit to the dentist per year including x-rays and one filling.
- \$304 is the average cost in Auckland, \$6 a week has been assumed for each adult.

School costs

- Costs from WEAG (2019) have been adjusted to March 2022 using the BHLPI primary and secondary education inflation rate.
- WEAG (2019) assumed costs of \$700 per year (around \$13 per week) for primary/intermediate and \$900 per year (around \$17 per week) for secondary school.

Transport

- Private transport costs: 1 car per family, 7L petrol used per 100km, 100km per adult in household and 50km per child travelled per week, cost of fuel of \$2.91 per litre.²⁵
- A monthly bus/train pass for \$215 assumed for those in work²⁶ and half the adult travel.
- The following costs were adjusted for inflation from WEAG (2019)
 - \$15 per week per family saving towards a new car (adjusted to 2022 using the BHLPI Purchase of Vehicles inflation rate).
 - \$27 a week for the cost of upkeep for car including oil, tyres, repairs, maintenance, service, registration, and WOF (adjusted to 2022 using the CPI Vehicle Servicing and Repairs inflation rate).

Bank fees

- Costs of \$5 a week from WEAG (2019) have been adjusted from June 2018 to March 2022 using the CPI Direct Credit Service Charges inflation rate.

Insurance (contents, car)

- The following costs from WEAG (2019) have been adjusted from June 2018 to March 2022 using the BHLPI insurance inflation rate.
 - Contents insurance for smaller families: renting, \$15,000 cover, \$300 excess, 40-year-old male, no previous claims: \$30.79 a fortnight, rounded up to \$15 a week.
 - Contents insurance for larger families: renting, \$30,000 cover, \$300 excess, no previous claims: \$34.57 a fortnight, rounded up to \$18 a week.
 - Car insurance: full car insurance: (\$400 excess, 1998 Toyota Camry (1.8L), 40-year-old male, no previous claims, lives in Manurewa): \$36.36 per month equals around \$9 a week.

²⁴ New Zealand Dental Association 2020 Fee Survey:

https://www.nzda.org.nz/assets/files/Public/Resources/Fee_Survey_2020.pdf

²⁵ https://www.globalpetrolprices.com/New-Zealand/gasoline_prices/

²⁶ <https://at.govt.nz/bus-train-ferry/at-hop-card/top-up-at-hop-card/at-blue-monthly-pass/>

Personal care (haircuts, grooming etc.)

- 60% of average weekly expenditure by household size from the HES 2019 adjusted to 2022 using the BHLPI personal care inflation rate.

Household contents and services (cleaning products, furniture, appliances including repairs etc.)

- 60% of expenditure by number of people per household from HES 2019 adjusted to 2022 using the BHLPI household contents and services inflation rate.

Participation costs

Sports and fitness

- 1 term of football at Manurewa AFC for children and youth: \$50 a term for 5- and 8-year-olds, \$130 for 10-year-olds, and \$155 for 15-year-olds.²⁷
- 1 term of athletics for pre-schoolers: \$60 for a 2-year-old at Manurewa Athletics Club.²⁸
- City fitness gym membership for each adult at \$7 a week.²⁹
- Transport of \$5 per week per activity adjusted from the WEAG (2019) assumed amount for inflation from June 2018 to March 2022 using the BHLPI Passenger Transport Services inflation rate.

Activities or cultural events for adults

- Costs from WEAG (2019) have been adjusted from June 2018 to March 2022 using the BHLPI inflation rate for recreation and cultural services.
- WEAG (2019) assumed a low-cost activity two times per month (for example, a class at a community centre) or attendance at a cultural or family event (for example, contributing food or extra travel) at \$5 per activity (\$10 per month, per adult and additional transport cost of \$2 per activity).

Activities or cultural events for children

- Costs from WEAG (2019) have been adjusted from June 2018 to March 2022 using the BHLPI inflation rate for recreation and cultural services.
- WEAG (2019) assumed a low-cost activity two times per month (for example, pools, recreation centre, zoo) or attendance at a cultural or family event (for example, contributing food or extra travel) of:
 - \$5 per activity (\$10 per month, per child) and \$10 per activity for secondary school children.
 - Additional transport cost of \$2 per week per activity.

Presents for friends and family

- Costs from WEAG (2019) have been adjusted from June 2018 to March 2022 using the BHLPI overall inflation rate.
- WEAG (2019) assumed \$10 per additional family member twice a year and three additional presents for non-immediate family or friends, per person at \$10.

²⁷ <https://manurewaafc.org.nz>

²⁸ <https://www.sporty.co.nz/manurewaathleticsclub/>

²⁹ <https://www.cityfitness.co.nz/memberships>

Holidays

- Assumed a trip for each family from Auckland to Wellington twice a year to visit extended family and friends (as per WEAG 2019).
- For 1 and 2 person families a return bus trip on *Intercity* booked 2 months in advance is assumed at \$42 per person aged over 2 years.³⁰
- For larger families, travel by car is assumed. The cost of petrol (\$100 each way) used by WEAG (2019) was adjusted from June 2018 to March 2022 using the BHLPI petrol inflation rate.
- Spending money of \$20 per person per day, assumed by WEAG (2019), has been adjusted from Mid-2018 to March 2022 using the BHLPI overall inflation rate.

Contingency (for one-off costs such as moving, vet bills etc.)

- Costs of \$5 a week per adult and \$2 a week per child, assumed by WEAG (2019), have been adjusted from Mid-2018 to March 2022 using the BHLPI overall inflation rate.

Personal allowances (for cheap food/dairy/drink, assumes no smoking and very limited alcohol)

- Costs of \$10 per adult and teenager and \$5 per child per week, assumed by WEAG (2019), have been adjusted from Mid-2018 to March 2022 using the BHLPI overall inflation rate.

Childcare

- For the 2-year-olds
 - If the sole parent is working 20 hours a week, 5 days of childcare at 7 hours a day (35 hours a week) at \$45 a day (6.43 an hour) are assumed, based on Manurewa YMCA rates.
 - If the sole parent is working 40 hours a week, 50 hours of childcare a week at \$5.26 an hour is assumed, based on rates of \$50 per day for 9.5-hour days at Manurewa YMCA.³¹
- For the 5- and 8-year-olds
 - For parents working 20 hours, it's assumed that the children don't need after-school care.
 - For parents working 40 hours, it's assumed that both children need 15 hours of care a week at \$5.86 an hour, based on rates at Manurewa leisure centre of \$87.90.³² After school care is assumed for 40 weeks a year.
 - During school holidays, it is assumed that the children need 45 hours a week of care at \$3.09 an hour, based on rates at Manurewa leisure centre.³³ School holiday care is assumed for 8 weeks a year.

³⁰ <https://www.intercity.co.nz/book-a-trip/bookdepart>

³¹ <https://www.careforkids.co.nz/child-care/w2927/ymca-early-learning-centre-manurewa-2102>

³² <https://aucklandleisure.co.nz/locations/manurewa-leisure-centre/#outofschoolcare>

³³ <https://aucklandleisure.co.nz/locations/manurewa-leisure-centre/#programmes>

Appendix 2: Supplementary Tables

Table 14: Income, costs, and surpluses/deficits as at 1 April 2022

Scenario	Age of children	Single person		Single person		Single person			Sole parent, one child				Sole parent, three children				Couple, two children				
		n/a		n/a		n/a			2				2,5,8				10,15				
		Public	Private	Private		Private		Private sharing	Private		Private sharing	Public	Private			Private			Private (high cost)		
		Benefit	Benefit	Benefit	20hrs	Benefit	40hrs	Benefit	Benefit	20hrs	40hrs	Benefit	Benefit	Benefit	20hrs	40hrs	Benefit	40hrs	40+20hrs	Benefit	
	SLP	SLP	JS-HCD	JS-HCD	JS-WR		JS-WR		SPS			SPS	SPS	SPS				JS-WR			JS-WR
Income	After-tax employment income (\$22.7/hour)				\$368		\$755			\$387	\$755				\$387	\$755		\$755	\$1,141		
	Main benefit (after tax)	\$359	\$359	\$315	\$109	\$315		\$315	\$441			\$441	\$441	\$441				\$566			\$566
	Winter Energy Payment (averaged over year)	\$9	\$9	\$9	\$9	\$9		\$9	\$13			\$13	\$13	\$13				\$13			\$13
	In-Work Tax Credit									\$73	\$73				\$73	\$73		\$73	\$73		
	Family Tax Credit								\$128	\$128	\$104	\$128	\$336	\$336	\$336	\$312		\$232	\$208	\$86	\$232
	Minimum Family Tax Credit									\$239					\$239						
	Independent Earner Tax Credit						\$2														
	Accommodation Supplement or IRRS	\$301	\$165	\$165	\$165	\$165	\$91	\$80	\$235	\$235	\$206	\$172	\$438	\$305	\$305	\$276		\$285	\$285	\$187	\$305
	Temporary Additional Support		\$88	\$95		\$95		\$5										\$27			\$47
	Best start								\$65	\$65	\$65	\$65	\$65	\$65	\$65	\$65					
	Total income per week	\$669	\$621	\$583	\$651	\$583	\$848	\$408	\$882	\$1,126	\$1,203	\$819	\$1,293	\$1,160	\$1,404	\$1,481	\$1,123	\$1,321	\$1,487	\$1,163	
Govt transfers as % of total income	100	100	100	43	100	11	100	100	66	37	100	100	100	72	49	100	43	23	100		
Core Expenditure	Rent	\$390	\$390	\$390	\$390	\$390	\$390	\$193	\$490	\$490	\$490	\$387	\$580	\$580	\$580	\$580	\$580	\$580	\$580	\$620	
	Electricity/Gas/Water	\$36	\$42	\$42	\$42	\$42	\$42	\$28	\$62	\$62	\$62	\$42	\$71	\$83	\$83	\$83	\$83	\$83	\$83	\$83	
	Food	\$72	\$72	\$72	\$72	\$72	\$93	\$72	\$106	\$106	\$136	\$106	\$203	\$203	\$203	\$263	\$272	\$272	\$354	\$272	
	Phone and broadband	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$28	\$28	\$28	\$28
	Clothes and shoes	\$8	\$8	\$8	\$10	\$8	\$10	\$8	\$21	\$28	\$28	\$21	\$33	\$33	\$44	\$44	\$33	\$44	\$44	\$33	
	Medical	\$17	\$17	\$17	\$17	\$6	\$6	\$6	\$8	\$8	\$8	\$8	\$11	\$11	\$11	\$11	\$20	\$20	\$20	\$20	
	Dental	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$12	\$12	\$12	\$12	
	School costs												\$39	\$39	\$39	\$39	\$30	\$30	\$30	\$30	
	Transport costs	\$65	\$65	\$65	\$109	\$65	\$109	\$65	\$75	\$119	\$119	\$75	\$96	\$96	\$139	\$139	\$106	\$139	\$193	\$106	
	Bank fees	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	
	Insurance (contents, car)	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$31	\$31	\$31	\$31	\$31	\$31	\$31	\$31	
	Personal care (hair cuts, grooming)	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$16	\$28	\$28	\$16	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	
	Household contents and services	\$19	\$19	\$19	\$19	\$19	\$19	\$13	\$36	\$36	\$36	\$27	\$43	\$43	\$43	\$43	\$43	\$43	\$43	\$43	
	Total core Costs	\$666	\$672	\$672	\$718	\$661	\$728	\$446	\$868	\$930	\$961	\$735	\$1,152	\$1,164	\$1,219	\$1,279	\$1,259	\$1,303	\$1,439	\$1,299	
Participation Expenditure	Sports/fitness	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$22	\$22	\$22	\$22	\$37	\$37	\$37	\$37	\$47	\$47	\$47	\$47	
	Activities or cultural events for adults	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$10	\$10	\$10	\$10	
	Activities for children								\$5	\$5	\$5	\$5	\$15	\$15	\$15	\$15	\$13	\$13	\$13	\$13	
	Presents	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$2	\$2	\$2	\$2	\$3	\$3	\$3	\$3	\$4	\$4	\$4	\$4	
	Holidays	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$3	\$3	\$3	\$3	\$13	\$13	\$13	\$13	\$13	\$13	\$13	\$13	
	Contingency for unplanned one-off costs	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$8	\$8	\$8	\$8	\$12	\$12	\$12	\$12	\$16	\$16	\$16	\$16	
	Personal allowances	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$17	\$17	\$17	\$17	\$28	\$28	\$28	\$28	\$39	\$39	\$39	\$39	
	Total participation costs	\$39	\$39	\$39	\$39	\$39	\$39	\$39	\$62	\$62	\$62	\$62	\$114	\$114	\$114	\$114	\$141	\$141	\$141	\$141	

Scenario	Age of children	Single person		Single person		Single person			Sole parent, one child				Sole parent, three children				Couple, two children						
		n/a		n/a		n/a			2				2,5,8				10,15						
		Public		Private		Private		Private		Private sharing		Private		Private sharing		Public		Private		Private		Private (high cost)	
		Benefit	Benefit	Benefit	20hrs	Benefit	40hrs	Benefit	20hrs	40hrs	Benefit	20hrs	40hrs	Benefit	20hrs	40hrs	Benefit	40hrs	40+20hrs	Benefit	40hrs	40+20hrs	
	SLP	SLP	JS-HCD	JS-HCD	JS-WR		JS-WR		SPS			SPS	SPS	SPS				JS-WR			JS-WR		
Childcare Expenditure	Childcare gross costs									\$225	\$263				\$244	\$421							
	Childcare subsidies									\$199	\$227				\$224	\$417							
	Net childcare costs									\$26	\$37				\$20	\$4							
Totals	Total income	\$669	\$621	\$583	\$651	\$583	\$848	\$408	\$882	\$1,126	\$1,203	\$819	\$1,293	\$1,160	\$1,404	\$1,481	\$1,123	\$1,321	\$1,487	\$1,163			
	Total core costs	\$666	\$672	\$672	\$718	\$661	\$728	\$446	\$868	\$930	\$961	\$735	\$1,152	\$1,164	\$1,219	\$1,279	\$1,259	\$1,303	\$1,439	\$1,299			
	Total core costs with childcare	\$666	\$672	\$672	\$718	\$661	\$728	\$446	\$868	\$956	\$998	\$735	\$1,152	\$1,164	\$1,238	\$1,282	\$1,259	\$1,303	\$1,439	\$1,299			
	Total costs after participation	\$705	\$711	\$711	\$757	\$700	\$768	\$485	\$930	\$993	\$1,024	\$797	\$1,266	\$1,278	\$1,333	\$1,393	\$1,400	\$1,444	\$1,580	\$1,440			
	Total costs after participation with childcare	\$705	\$711	\$711	\$757	\$700	\$768	\$485	\$930	\$1,019	\$1,060	\$797	\$1,266	\$1,278	\$1,353	\$1,397	\$1,400	\$1,444	\$1,580	\$1,440			
Difference between income and costs (surplus/deficit)	Surplus/deficit core level	\$3	-\$50	-\$88	-\$67	-\$78	\$119	-\$37	\$14	\$195	\$241	\$85	\$141	-\$4	\$185	\$202	-\$136	\$17	\$48	-\$136			
	Surplus/deficit with core expenditure (after childcare)	\$3	-\$50	-\$88	-\$67	-\$78	\$119	-\$37	\$14	\$169	\$205	\$85	\$141	-\$4	\$165	\$198	-\$136	\$17	\$48	-\$136			
	Surplus/deficit participation level	-\$36	-\$90	-\$128	-\$106	-\$117	\$80	-\$77	-\$48	\$133	\$179	\$22	\$27	-\$118	\$71	\$88	-\$277	-\$124	-\$93	-\$277			
	Surplus/deficit with participation (after childcare)	-\$36	-\$90	-\$128	-\$106	-\$117	\$80	-\$77	-\$48	\$107	\$143	\$22	\$27	-\$118	\$51	\$84	-\$277	-\$124	-\$93	-\$277			
Comparison to WEAG (2019)	Surplus/deficit with participation (pre childcare)	\$56	\$47	\$46	\$34	\$47	\$38	\$55	\$64	\$105	\$116	\$88	\$164	\$137	\$158	\$169	\$79	\$56	\$44	\$79			
	Surplus/deficit with participation (after childcare)	\$56	\$47	\$46	\$34	\$47	\$38	\$55	\$64	\$150	\$146	\$88	\$164	\$137	\$222	\$197	\$79	\$56	\$44	\$79			
	Surplus/deficit with core expenditure (after childcare)	\$57	\$48	\$48	\$35	\$48	\$39	\$57	\$65	\$151	\$147	\$91	\$164	\$137	\$222	\$197	\$94	\$71	\$60	\$94			

Table 15: Changes from Mid-2018 to April 2022

Scenario	Age of children	Single person		Single person		Single person			Sole parent, one child				Sole parent, three children				Couple, two children						
		n/a		n/a		n/a			2				2,5,8				10,15						
		Accommodation		Public	Private	Private		Private		Private sharing		Private		Private sharing		Public	Private			Private			Private (high cost)
		Employment/benefit		Benefit	Benefit	Benefit	20hrs	Benefit	40hrs	Benefit	Benefit	20hrs	40hrs	Benefit	Benefit	Benefit	20hrs	40hrs	Benefit	40hrs	40+20hrs	Benefit	
		SLP	SLP	JS-HDC	JS-HDC	JS-WR		JS-WR	SPS			SPS	SPS	SPS			JS-WR			JS-WR			
Before housing costs income	Total income (2018)	\$501	\$461	\$423	\$502	\$423	\$695	\$313	\$690	\$879	\$943	\$558	\$1,002	\$894	\$1,117	\$1,182	\$870	\$1,100	\$1,256	\$930			
	Total Income (2022)	\$669	\$621	\$583	\$651	\$583	\$848	\$408	\$882	\$1,126	\$1,203	\$819	\$1,293	\$1,160	\$1,404	\$1,481	\$1,123	\$1,321	\$1,487	\$1,163			
	Change in income 2018-2022	\$168	\$160	\$160	\$148	\$160	\$153	\$95	\$192	\$247	\$259	\$262	\$291	\$266	\$287	\$299	\$254	\$221	\$231	\$234			
Housing costs	Housing Costs (2018)	\$290	\$290	\$290	\$290	\$290	\$290	\$180	\$390	\$390	\$390	\$250	\$470	\$470	\$470	\$470	\$470	\$470	\$470	\$530			
	Housing Costs (2022)	\$390	\$390	\$390	\$390	\$390	\$390	\$193	\$490	\$490	\$490	\$387	\$580	\$580	\$580	\$580	\$580	\$580	\$580	\$620			
	Change in housing costs 2018-2022	\$100	\$100	\$100	\$100	\$100	\$100	\$13	\$100	\$100	\$100	\$137	\$110	\$110	\$110	\$110	\$110	\$110	\$110	\$90			
After housing costs Income	AHC income (2018)	\$211	\$171	\$133	\$212	\$133	\$405	\$133	\$300	\$489	\$553	\$308	\$532	\$424	\$647	\$712	\$400	\$630	\$786	\$400			
	AHC Income (2022)	\$279	\$231	\$193	\$261	\$193	\$458	\$215	\$392	\$636	\$713	\$433	\$713	\$580	\$824	\$901	\$543	\$741	\$907	\$543			
	Change in AHC income 2018-2022	\$68	\$60	\$60	\$48	\$60	\$53	\$82	\$92	\$147	\$159	\$125	\$181	\$156	\$177	\$189	\$144	\$111	\$121	\$144			
Change in Cost Levels	Total core costs (2018)	\$554	\$559	\$559	\$604	\$550	\$615	\$407	\$741	\$790	\$820	\$564	\$1,025	\$1,035	\$1,090	\$1,149	\$1,100	\$1,154	\$1,267	\$1,160			
	Total core costs (2022)	\$666	\$672	\$672	\$718	\$661	\$728	\$446	\$868	\$930	\$961	\$735	\$1,152	\$1,164	\$1,219	\$1,279	\$1,259	\$1,303	\$1,439	\$1,299			
	Change in core costs 2018-2022	\$111	\$112	\$112	\$113	\$111	\$113	\$39	\$127	\$140	\$141	\$171	\$127	\$129	\$129	\$130	\$159	\$149	\$171	\$139			
	Total participation costs (2018)	\$593	\$598	\$598	\$643	\$588	\$653	\$445	\$802	\$851	\$880	\$624	\$1,139	\$1,149	\$1,204	\$1,262	\$1,225	\$1,280	\$1,393	\$1,285			
	Total participation costs (2022)	\$705	\$711	\$711	\$757	\$700	\$768	\$485	\$930	\$993	\$1,024	\$797	\$1,266	\$1,278	\$1,333	\$1,393	\$1,400	\$1,444	\$1,580	\$1,440			
	Change in participation level 2018-2022	\$112	\$113	\$113	\$114	\$113	\$115	\$40	\$128	\$142	\$143	\$173	\$127	\$129	\$129	\$130	\$175	\$165	\$187	\$155			
	Childcare costs after subsidy (2018)									\$70	\$66				\$84	\$33							
	Total childcare costs after subsidy (2022)									\$26	\$37				\$20	\$4							
	Change in childcare costs after subsidy 2018-2022									-\$45	-\$29				-\$64	-\$29							
	Total costs (2018)	\$593	\$598	\$598	\$643	\$588	\$653	\$445	\$802	\$921	\$946	\$624	\$1,139	\$1,149	\$1,288	\$1,295	\$1,225	\$1,280	\$1,393	\$1,285			
	Total costs (2022)	\$705	\$711	\$711	\$757	\$700	\$768	\$485	\$930	\$1,019	\$1,060	\$797	\$1,266	\$1,278	\$1,353	\$1,397	\$1,400	\$1,444	\$1,580	\$1,440			
	Change in total costs 2018-2022	\$112	\$113	\$113	\$114	\$113	\$115	\$40	\$128	\$97	\$114	\$173	\$127	\$129	\$64	\$102	\$175	\$165	\$187	\$155			
Change in Costs other than housing	Non-housing Core Costs (2018)	\$264	\$269	\$269	\$314	\$260	\$325	\$227	\$351	\$400	\$430	\$314	\$555	\$565	\$620	\$679	\$630	\$684	\$797	\$630			
	Non-housing Core Costs (2022)	\$276	\$282	\$282	\$328	\$271	\$338	\$252	\$378	\$440	\$471	\$348	\$572	\$584	\$639	\$699	\$679	\$723	\$859	\$679			
	Change in non-housing core costs 2018 to 2022	\$11	\$12	\$12	\$13	\$11	\$13	\$25	\$27	\$40	\$41	\$34	\$17	\$19	\$19	\$20	\$49	\$39	\$61	\$49			
	Non-housing Participation Costs (2018)	\$303	\$308	\$308	\$353	\$298	\$363	\$265	\$412	\$461	\$490	\$374	\$669	\$679	\$734	\$792	\$755	\$810	\$923	\$755			
	Non-housing Participation Costs (2022)	\$315	\$321	\$321	\$367	\$310	\$378	\$292	\$440	\$503	\$534	\$410	\$686	\$698	\$753	\$813	\$820	\$864	\$1,000	\$820			
	Change in non-housing Participation costs 2018 to 2022	\$12	\$13	\$13	\$14	\$13	\$15	\$26	\$28	\$42	\$43	\$36	\$17	\$19	\$19	\$20	\$65	\$55	\$77	\$65			
	Non-housing Total Costs (2018)	\$303	\$308	\$308	\$353	\$298	\$363	\$265	\$412	\$531	\$556	\$374	\$669	\$679	\$818	\$825	\$755	\$810	\$923	\$755			
	Non-housing Total Costs (2022)	\$315	\$321	\$321	\$367	\$310	\$378	\$292	\$440	\$529	\$570	\$410	\$686	\$698	\$773	\$817	\$820	\$864	\$1,000	\$820			
	Change in non-housing total costs 2018 to 2022	\$12	\$13	\$13	\$14	\$13	\$15	\$26	\$28	-\$3	\$14	\$36	\$17	\$19	-\$46	-\$8	\$65	\$55	\$77	\$65			

Scenario		Single person		Single person		Single person		Sole parent, one child				Sole parent, three children				Couple, two children					
	Age of children	n/a		n/a		n/a		2				2,5,8				10,15					
	Accommodation	Public	Private	Private		Private		Private sharing		Private		Private sharing		Public	Private			Private			Private (high cost)
	Employment/benefit	Benefit	Benefit	Benefit	20hrs	Benefit	40hrs	Benefit	Benefit	20hrs	40hrs	Benefit	Benefit	20hrs	40hrs	Benefit	40hrs	40+20hrs	Benefit	40hrs	40+20hrs
	SLP	SLP	JS-HDC	JS-HDC	JS-WR		JS-WR	SPS			SPS	SPS	SPS		SPS	SPS		JS-WR			JS-WR
Difference between income and costs (surplus/deficit) at core level	Surplus/deficit core expenditure (2018) (pre childcare)	-\$54	-\$98	-\$136	-\$102	-\$126	\$80	-\$94	-\$51	\$88	\$123	-\$6	-\$23	-\$141	\$27	\$33	-\$230	-\$54	-\$12	-\$230	
	Surplus/deficit core expenditure (2022) (pre childcare)	\$3	-\$50	-\$88	-\$67	-\$78	\$119	-\$37	\$14	\$195	\$241	\$85	\$141	-\$4	\$185	\$202	-\$136	\$17	\$48	-\$136	
	Change in surplus/deficit with core expenditure (pre childcare)	\$57	\$48	\$48	\$35	\$48	\$39	\$57	\$65	\$107	\$118	\$91	\$164	\$138	\$158	\$169	\$94	\$72	\$60	\$94	
	Surplus/deficit with core expenditure (2018) (after childcare)	-\$54	-\$98	-\$136	-\$102	-\$126	\$80	-\$94	-\$51	\$18	\$58	-\$6	-\$23	-\$141	-\$57	\$1	-\$230	-\$54	-\$12	-\$230	
	Surplus/deficit with core expenditure (2022) (after childcare)	\$3	-\$50	-\$88	-\$67	-\$78	\$119	-\$37	\$14	\$169	\$205	\$85	\$141	-\$4	\$165	\$198	-\$136	\$17	\$48	-\$136	
	Change in surplus/deficit with core expenditure (after childcare)	\$57	\$48	\$48	\$35	\$48	\$39	\$57	\$65	\$152	\$147	\$91	\$164	\$138	\$223	\$197	\$94	\$72	\$60	\$94	
Difference between income and costs (surplus/deficit) at participation level	Surplus/deficit with participation (2018) (pre childcare)	-\$92	-\$137	-\$174	-\$140	-\$164	\$42	-\$132	-\$112	\$28	\$63	-\$66	-\$137	-\$255	-\$87	-\$81	-\$356	-\$180	-\$137	-\$356	
	Surplus/deficit with participation (2022) (pre childcare)	-\$36	-\$90	-\$128	-\$106	-\$117	\$80	-\$77	-\$48	\$133	\$179	\$22	\$27	-\$118	\$71	\$88	-\$277	-\$124	-\$93	-\$277	
	Change in Surplus/deficit with participation (pre childcare)	\$55	\$47	\$47	\$34	\$47	\$38	\$56	\$63	\$105	\$116	\$89	\$164	\$138	\$158	\$169	\$79	\$56	\$44	\$79	
	Surplus/deficit with participation (2018) (after childcare)	-\$92	-\$137	-\$174	-\$140	-\$164	\$42	-\$132	-\$112	-\$43	-\$3	-\$66	-\$137	-\$255	-\$171	-\$113	-\$356	-\$180	-\$137	-\$356	
	Surplus/deficit with participation (2022) (after childcare)	-\$36	-\$90	-\$128	-\$106	-\$117	\$80	-\$77	-\$48	\$107	\$143	\$22	\$27	-\$118	\$51	\$84	-\$277	-\$124	-\$93	-\$277	
	Change in surplus/deficit with participation expenditure (after childcare)	\$55	\$47	\$47	\$34	\$47	\$38	\$56	\$63	\$150	\$145	\$89	\$164	\$138	\$222	\$197	\$79	\$56	\$44	\$79	

Table 16: Comparison of alternative approaches to updating costs

Scenario		Single person		Single person		Single person			Sole parent, one child				Sole parent, three children				Couple, two children			
	Age of children	n/a		n/a		n/a			2				2,5,8				10,15			
	Accommodation	Public	Private	Private		Private		Private sharing	Private			Private sharing	Public	Private			Private			Private (high cost)
	Employment/benefit	Benefit	Benefit	Benefit	20hrs	Benefit	40hrs	Benefit	Benefit	20hrs	40hrs	Benefit	Benefit	Benefit	20hrs	40hrs	Benefit	40hrs	40+20hrs	Benefit
	SLP	SLP	JS-HDC	JS-HDC	JS-WR		JS-WR	SPS			SPS	SPS	SPS	SPS		JS-WR			JS-WR	
All costs adjusted using CPI	Total income	\$605	\$557	\$526	\$651	\$526	\$848	\$411	\$855	\$1,099	\$1,176	\$745	\$1,242	\$1,126	\$1,370	\$1,447	\$1,072	\$1,286	\$1,451	\$1,139
	Core costs	\$624	\$629	\$629	\$680	\$618	\$692	\$458	\$834	\$889	\$923	\$634	\$1,154	\$1,165	\$1,226	\$1,292	\$1,237	\$1,298	\$1,426	\$1,305
	Core costs with childcare	\$624	\$629	\$629	\$680	\$618	\$692	\$458	\$834	\$971	\$1,000	\$634	\$1,154	\$1,165	\$1,302	\$1,310	\$1,237	\$1,298	\$1,426	\$1,305
	Participation costs	\$667	\$672	\$672	\$723	\$661	\$735	\$501	\$902	\$957	\$991	\$702	\$1,282	\$1,293	\$1,354	\$1,420	\$1,378	\$1,440	\$1,567	\$1,446
	Participation costs with childcare	\$667	\$672	\$672	\$723	\$661	\$735	\$501	\$902	\$1,039	\$1,068	\$702	\$1,282	\$1,293	\$1,430	\$1,438	\$1,378	\$1,440	\$1,567	\$1,446
	Surplus/deficit core level	-\$19	-\$72	-\$103	-\$29	-\$92	\$156	-\$47	\$21	\$210	\$253	\$111	\$89	-\$38	\$144	\$155	-\$165	-\$13	\$25	-\$166
	Surplus/deficit with core costs (after childcare)	-\$19	-\$72	-\$103	-\$29	-\$92	\$156	-\$47	\$21	\$128	\$175	\$111	\$89	-\$38	\$68	\$137	-\$165	-\$13	\$25	-\$166
	Surplus/deficit with participation costs	-\$62	-\$115	-\$146	-\$72	-\$135	\$113	-\$90	-\$47	\$142	\$185	\$43	-\$40	-\$167	\$16	\$26	-\$306	-\$154	-\$117	-\$307
	Surplus/deficit with participation (after childcare)	-\$62	-\$115	-\$146	-\$72	-\$135	\$113	-\$90	-\$47	\$60	\$107	\$43	-\$40	-\$167	-\$60	\$8	-\$306	-\$154	-\$117	-\$307
All costs adjusted using BHLPI	Total income	\$605	\$557	\$526	\$651	\$526	\$848	\$411	\$855	\$1,099	\$1,175	\$745	\$1,242	\$1,126	\$1,370	\$1,446	\$1,071	\$1,285	\$1,451	\$1,154
	Core costs	\$624	\$630	\$630	\$681	\$619	\$693	\$458	\$835	\$890	\$924	\$635	\$1,155	\$1,166	\$1,228	\$1,294	\$1,239	\$1,300	\$1,428	\$1,306
	Core costs with childcare	\$624	\$630	\$630	\$681	\$619	\$693	\$458	\$835	\$972	\$1,001	\$635	\$1,155	\$1,166	\$1,325	\$1,335	\$1,239	\$1,300	\$1,428	\$1,306
	Participation costs	\$668	\$673	\$673	\$724	\$662	\$736	\$501	\$903	\$958	\$992	\$703	\$1,283	\$1,295	\$1,356	\$1,422	\$1,380	\$1,441	\$1,569	\$1,448
	Participation costs with childcare	\$668	\$673	\$673	\$724	\$662	\$736	\$501	\$903	\$1,041	\$1,069	\$703	\$1,283	\$1,295	\$1,454	\$1,464	\$1,380	\$1,441	\$1,569	\$1,448
	Surplus/deficit core level	-\$20	-\$73	-\$104	-\$30	-\$93	\$155	-\$48	\$20	\$209	\$251	\$110	\$87	-\$40	\$142	\$152	-\$167	-\$15	\$23	-\$152
	Surplus/deficit with core costs (after childcare)	-\$20	-\$73	-\$104	-\$30	-\$93	\$155	-\$48	\$20	\$126	\$173	\$110	\$87	-\$40	\$45	\$111	-\$167	-\$15	\$23	-\$152
	Surplus/deficit with participation costs	-\$63	-\$116	-\$147	-\$73	-\$136	\$112	-\$91	-\$48	\$140	\$183	\$42	-\$42	-\$168	\$14	\$24	-\$309	-\$157	-\$118	-\$294
	Surplus/deficit with participation (after childcare)	-\$63	-\$116	-\$147	-\$73	-\$136	\$112	-\$91	-\$48	\$58	\$105	\$42	-\$42	-\$168	-\$84	-\$18	-\$309	-\$157	-\$118	-\$294
Main paper approach	Total income	\$669	\$621	\$583	\$651	\$583	\$848	\$408	\$882	\$1,126	\$1,203	\$819	\$1,293	\$1,160	\$1,404	\$1,481	\$1,123	\$1,321	\$1,487	\$1,163
	Core costs	\$666	\$672	\$672	\$718	\$661	\$728	\$446	\$868	\$930	\$961	\$735	\$1,152	\$1,164	\$1,219	\$1,279	\$1,259	\$1,303	\$1,439	\$1,299
	Core costs with childcare	\$666	\$672	\$672	\$718	\$661	\$728	\$446	\$868	\$956	\$998	\$735	\$1,152	\$1,164	\$1,238	\$1,282	\$1,259	\$1,303	\$1,439	\$1,299
	Participation costs	\$705	\$711	\$711	\$757	\$700	\$768	\$485	\$930	\$993	\$1,024	\$797	\$1,266	\$1,278	\$1,333	\$1,393	\$1,400	\$1,444	\$1,580	\$1,440
	Participation costs with childcare	\$705	\$711	\$711	\$757	\$700	\$768	\$485	\$930	\$1,019	\$1,060	\$797	\$1,266	\$1,278	\$1,353	\$1,397	\$1,400	\$1,444	\$1,580	\$1,440
	Surplus/deficit core level	\$3	-\$50	-\$88	-\$67	-\$78	\$119	-\$37	\$14	\$195	\$241	\$85	\$141	-\$4	\$185	\$202	-\$136	\$17	\$48	-\$136
	Surplus/deficit with core costs (after childcare)	\$3	-\$50	-\$88	-\$67	-\$78	\$119	-\$37	\$14	\$169	\$205	\$85	\$141	-\$4	\$165	\$198	-\$136	\$17	\$48	-\$136
	Surplus/deficit with participation costs	-\$36	-\$90	-\$128	-\$106	-\$117	\$80	-\$77	-\$48	\$133	\$179	\$22	\$27	-\$118	\$71	\$88	-\$277	-\$124	-\$93	-\$277
	Surplus/deficit with participation (after childcare)	-\$36	-\$90	-\$128	-\$106	-\$117	\$80	-\$77	-\$48	\$107	\$143	\$22	\$27	-\$118	\$51	\$84	-\$277	-\$124	-\$93	-\$277

Scenario		Single person		Single person		Single person			Sole parent, one child				Sole parent, three children				Couple, two children			
	Age of children	n/a		n/a		n/a			2				2,5,8				10,15			
	Accommodation	Public	Private	Private		Private		Private sharing	Private			Private sharing	Public	Private					Private	Private (high cost)
	Employment/benefit	Benefit	Benefit	Benefit	20hrs	Benefit	40hrs	Benefit	Benefit	20hrs	40hrs	Benefit	Benefit	Benefit	20hrs	40hrs	Benefit	40hrs	40+20hrs	Benefit
	SLP	SLP	JS-HDC	JS-HDC	JS-WR		JS-WR	SPS			SPS	SPS	SPS			JS-WR			JS-WR	
Real 2022 housing and childcare costs used; other costs updated using BHLPI	Total income	\$669	\$621	\$583	\$651	\$583	\$848	\$445	\$882	\$1,126	\$1,203	\$751	\$1,293	\$1,160	\$1,404	\$1,481	\$1,123	\$1,321	\$1,487	\$1,163
	Core costs	\$688	\$693	\$693	\$744	\$682	\$756	\$449	\$886	\$941	\$974	\$740	\$1,206	\$1,217	\$1,278	\$1,344	\$1,289	\$1,351	\$1,478	\$1,329
	Core costs with childcare	\$688	\$693	\$693	\$744	\$682	\$756	\$449	\$886	\$967	\$1,011	\$740	\$1,206	\$1,217	\$1,298	\$1,348	\$1,289	\$1,351	\$1,478	\$1,329
	Participation costs	\$731	\$736	\$736	\$787	\$725	\$799	\$492	\$954	\$1,009	\$1,042	\$808	\$1,334	\$1,345	\$1,407	\$1,473	\$1,431	\$1,492	\$1,620	\$1,471
	Participation costs with childcare	\$731	\$736	\$736	\$787	\$725	\$799	\$492	\$954	\$1,035	\$1,079	\$808	\$1,334	\$1,345	\$1,426	\$1,477	\$1,431	\$1,492	\$1,620	\$1,471
	Surplus/deficit core level	-\$19	-\$72	-\$110	-\$93	-\$99	\$92	-\$4	-\$4	\$185	\$228	\$11	\$88	-\$56	\$126	\$136	-\$166	-\$30	\$8	-\$166
	Surplus/deficit with core costs (after childcare)	-\$19	-\$72	-\$110	-\$93	-\$99	\$92	-\$4	-\$4	\$159	\$192	\$11	\$88	-\$56	\$106	\$133	-\$166	-\$30	\$8	-\$166
	Surplus/deficit with participation costs	-\$62	-\$115	-\$153	-\$136	-\$142	\$49	-\$47	-\$72	\$117	\$160	-\$57	-\$40	-\$185	-\$3	\$8	-\$308	-\$171	-\$133	-\$308
	Surplus/deficit with participation (after childcare)	-\$62	-\$115	-\$153	-\$136	-\$142	\$49	-\$47	-\$72	\$91	\$124	-\$57	-\$40	-\$185	-\$23	\$4	-\$308	-\$171	-\$133	-\$308