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Budget 2023 Distributional Analysis:

Research Note

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1. Introduction

The 2023 Commonwealth Budget was the first full budget of the Albanese Government following the budget update shortly after their election victory on 21 May 2022. The analysis reported in this paper focuses on the distributional impacts of the major personal income tax and welfare policies of the 2023-24 Budget. To gain a better understanding of the short term income implications important measures that were legislated earlier but yet to be implemented are also considered – increased child care subsidy and the final stage (stage 3) of the previous Coalition Government’s *Stage 3 Tax Plan*.

The 2023-24 budget has a number of important tax and transfer policy measures. These policies have a focus on the working age welfare payments JobSeeker, Youth Allowance and Parenting Payment Single. The 2023 Economic Inclusion Advisory Committee (EIAC) report found that adequacy of the JobSeeker payment would be substantially improved and payment relativities to a range of metrics would be restored to those of the 1990s with an increase to 90 per cent of the age pension from the current 65 per cent relativity. The finding of the Economic Inclusion Advisory Committee is consistent with the widespread concern that unemployment related payments are inadequate.¹

The budget, while not increasing payment rates to the extent recommended by the Economic Inclusion Advisory Committee, includes policies that provide around \$2.8 billion per annum of additional funding for the welfare payments from 2023-24. The welfare budget measures include:

1. Increase JobSeeker, Youth Allowance and related payments by \$40 per fortnight;
2. Shift those recipients aged between 55 and 60 in (1) to the moderately higher rate that currently applies to singles aged 60 and up to age pension age;
3. Increase the age for the parenting payment to single parents whose youngest child is 14 (up from 8);
4. Increase Rent Assistance by 15%. Increase in single maximum Rent Assistance is from \$157 to \$181 per fortnight;
5. Provide a short-term energy rebate of up to \$500 per year to welfare recipient and concession card holder households for 2023-24².

In considering the expected change in disposable income on account of policy change we also consider the impact of two important changes in 2023-24 and 2024-25. These include:

- 1) Child Care Subsidy (CCS) maximum subsidy increased from 85 per cent of gross child care costs to 90 per cent and the cut-out point for the payment increased from an adjusted taxable family income of \$357,000 to \$530,000;
- 2) Stage 3 tax cuts where the 32.5 per cent tax rate that applies to taxable income between \$45,000 and \$120,000 lowered to 30 per cent and the 37 per cent rate that applies between \$120,000 and \$180,000 is also lowered to 30 per cent and extended up to \$200,000 per annum.

¹ In 2021, the previous Coalition Government increased the rate of the JobSeeker payment by \$50 a fortnight.

² The focus of this paper is permanent policy change so we have not included the energy rebate in our analysis as it only applies to 2023-24 financial year.

The paper presents the results of three separate analyses. The first is to consider just the 2023-24 Budget welfare changes introduced in 2023-24. The second is to combine these welfare changes with the CCS change introduced in 2023 and the stage three tax cuts which take effect in 2024. The third is to consider the impact of just the stage 1, 2 and 3 tax cuts against the tax system that applied just prior to their implementation (2017) where the 2017 system is indexed with wages growth to provide a comparison with the 2024 tax system. The stage 1 tax cuts (2018-19 to 2019-20) increased tax bracket thresholds and introduced a new temporary Low and Middle Income Tax Offset. The stage 2 tax cuts (2020-21 onwards) extended the operation of the Low and Middle Income Tax Offset and increased tax bracket thresholds.

2. Methodology

The approach adopted in this paper is to use the ANU PolicyMod microsimulation model of the Australian tax and transfer system. This model is based on an ABS income survey for 2017-18 and has been adjusted to better reflect the population of 2017/18 and beyond using a range of administration data and official statistics and budget forecasts and projections. The model simulates the current policy settings of most of the tax and transfer system in Australia. We simulate the proposed tax changes and apply the assumptions in the 2023-24 Federal Budget around wages, prices and population change. We compare the legislated policy (termed Base Case Policy Setting) with the proposed settings of the personal income tax system to model the overall fiscal impact of the policy change and the distributional impact for each year for Australian households.

In determining the impact of tax cuts it's important to define the appropriate counter-factual. To do this we compare the legislated tax changes with the following counter-factual policy - the personal income tax legislation in 2017-18 with tax thresholds indexed to budget projections of wage growth.

The type of comparison made in the budget papers when estimating 'costings' is appropriate for the accounting purposes of the Commonwealth Government. The Government's counterfactual is a comparison of tax revenue of the new system compared to the existing legislation. For economic and social analysis purposes this approach is problematic, particularly when considering impacts beyond the forward estimates.

For those parts of the tax and transfer system that are indexed with inflation or wages, such as the age pension or unemployment payments, this type of counter-factual may still be appropriate. However, for the personal income tax system, thresholds are not indexed on a regular basis. They require legislation to adjust rates and thresholds and this is usually not done on a regular basis.

Forward projections of tax revenue benefit from 'bracket creep' where incomes tend to increase and push people into higher tax rates, or a larger share of their income onto higher tax rates. Such revenue projections tend to be overstated as it is unlikely continually increasing tax rates through bracket creep will be viewed favourably by voters. Governments usually respond by lowering taxes through the adjustment of tax thresholds and rates.

The Government has recently begun estimating 'costings' or 'tax savings' over the medium term 10-year time horizon. This is a much longer time period than in previous budgets and due to bracket creep tends to generate significant tax savings since tax rate income thresholds and tax rates are

usually adjusted, albeit on an irregular basis.^{3,4} These estimates tend to over-state eventual tax savings. The counterfactual used in this paper involves adjusting tax thresholds in line with projections for wage growth, overcomes this problem and provides a more realistic estimate of the true policy impact of any tax changes into the future. If changes to the tax system are estimated to lower average tax rates relative to what they would have been had tax thresholds been indexed we can say there are genuine tax savings. Whereas, with the budget's counterfactual the tax savings may be an illusion generated by higher wages pushing tax payers increasingly into higher tax thresholds. Taken to the extreme, over a long enough time period (perhaps 50-years) and assuming some growth in wages, using the budget's counterfactual both the median and average income earner income would eventually increase to be greater than the income threshold for the top tax bracket. In reality, tax thresholds would increase over time to account for bracket creep. The counterfactual in this paper appropriately accounts for this problem.

The modelling of the impact of the tax cuts from 2017-18 involves creating a PolicyMod base data set for each year using the existing legislated policy (including all tax cuts) (Base Case). Comparison data sets are also created in PolicyMod for the counterfactual world. All data sets are based on the same population (same survey data and underlying assumptions used to make the survey data represent the population) but differ in terms of the personal income tax policies which are being compared. Using the two base data sets the average tax rate paid by each of PolicyMod's income units is calculated and the impact of the policy change (Base Case) relative to the counterfactual policy settings estimated.⁵ These impacts are then aggregated to household groups, such as low income or high income households.

While it is expected that the Base Case tax cuts would lead to some behavioural change, our model does not incorporate any such changes.⁶

This paper also reports a regional analysis of the impacts of the budget changes considered in this paper. The regional analysis is undertaken at the ABS' SA3 level. SA3s are designed to have population between 30,000 and 130,000 people and are "often the functional areas of regional and towns and cities with a population in excess of 20,000 or clusters of related suburbs around urban commercial and transport hubs within the major urban areas."⁷

³ <https://budget.gov.au/2019-20/content/tax.htm>

⁴ <https://cdn.treasury.gov.au/uploads/sites/1/2018/05/Senate-Estimates-May-2018-Attachment-1.pdf>

⁵ Each record in PolicyMod is an income unit. Tax and Transfer amounts are calculated at either the individual level (most often for personal income tax) (within an income unit) or at the income unit level (for example, family tax benefits or childcare payments). Income unit results are then aggregated to the household level.

⁶ Estimating the behavioural impacts requires a large amount of data and complex econometric modelling and beyond the scope of this paper. Such modelling tends to only tell a partial story. For example, changes in workforce participation are not necessarily modelled alongside labour force demand. It is also the case that behavioural modelling can lead to double counting of the policy impact as broad budget assumptions such as wages growth and employment growth already account for behaviour and economic change in response to policy change.

⁷ <https://www.abs.gov.au/statistics/standards/australian-statistical-geography-standard-asgs-edition-3/jul2021-jun2026/main-structure-and-greater-capital-city-statistical-areas/statistical-area-level-3>

The standard PolicyMod model is based on an ABS survey that only includes regional data at the state and capital city/non-capital city levels. As such, regional analysis at a more geographically disaggregated level is not directly possible and regions need to be synthetically generated.

The SA3 based regions used in this analysis are synthetically created in that the results obtained in the national analysis at the unit record data are reweighted using the ABS GREGWT software. The GREGWT software scales the weights down from the national level to those at the SA3 level in such a way that the weights represent a range of benchmarks obtained from the ABS Census and a range of other regional benchmarks including house prices (medians from Corelogic) and regional superannuation data (medians). The weights for each SA3 add up to the population totals for each SA3 and have the socioeconomic profiles from the Census. The generalised regression methodology is more closely described in Tanton (2011).

3. Results

3.1 The 2023-24 budget welfare measures

The 2023-24 Budget contained measures that boosted the JobSeeker payment, expanded the eligibility for Parenting Payment and increased Rent Assistance. These measures were modelled based on expected levels by December 2023 and results are for full financial years. Table 1 provides the expected cost for each of the main elements of the welfare changes.

Table 1 Budget Measure Costings, ANU PolicyMod

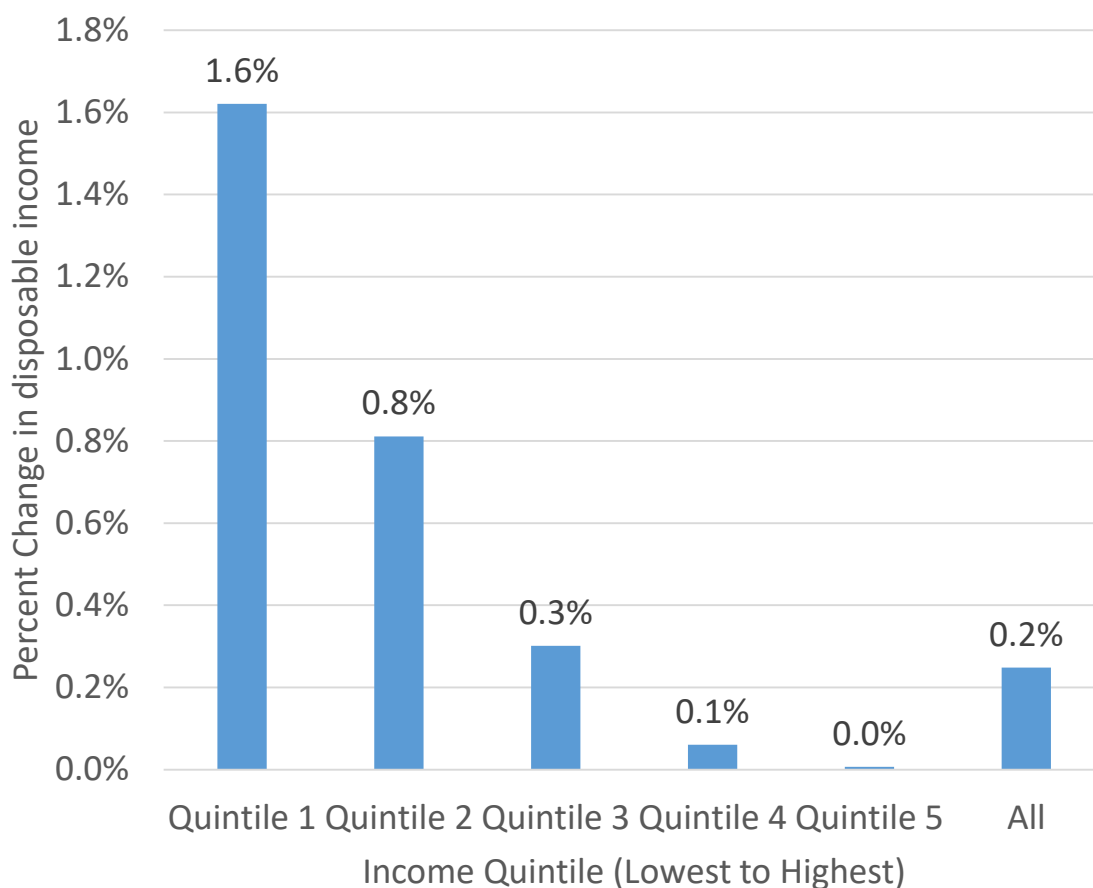
<i>Policy Change</i>	<i>Budget impact 2023-24[^]</i>
\$40 JobSeeker and related payment increase, increase in payment to 55 to 60 year old recipients	\$1,050m
Increasing age of youngest child age to qualify for parenting payment to 14 (from 8)*	\$1,050m
Increasing Rent Assistance maximum rate by 15 per cent	\$700m

[^]PolicyMod applies change to full financial year. These measures typically don't begin until September 2023.

*PolicyMod costing for the parenting payment change is substantially higher than that estimated in the budget. This is expected to relate to using a survey based microsimulation methodology that appears to introduce a greater number of 'new' recipients to parenting payment than that estimated by the government. Some of the extra recipients are due to the higher income cut-out point from Parenting Payment relative to JobSeeker and some additional recipients flow from persons not currently not receiving adult welfare payments on account of less restrictive eligibility rules such as no liquid assets test.

Figure 1 provides the results for welfare increases that are permanent (i.e., does not including the energy rebate which is only for one year).

Figure 1 Impact of 2023-24 Welfare Measures on disposable household income, % change, by income quintile, 2023-24



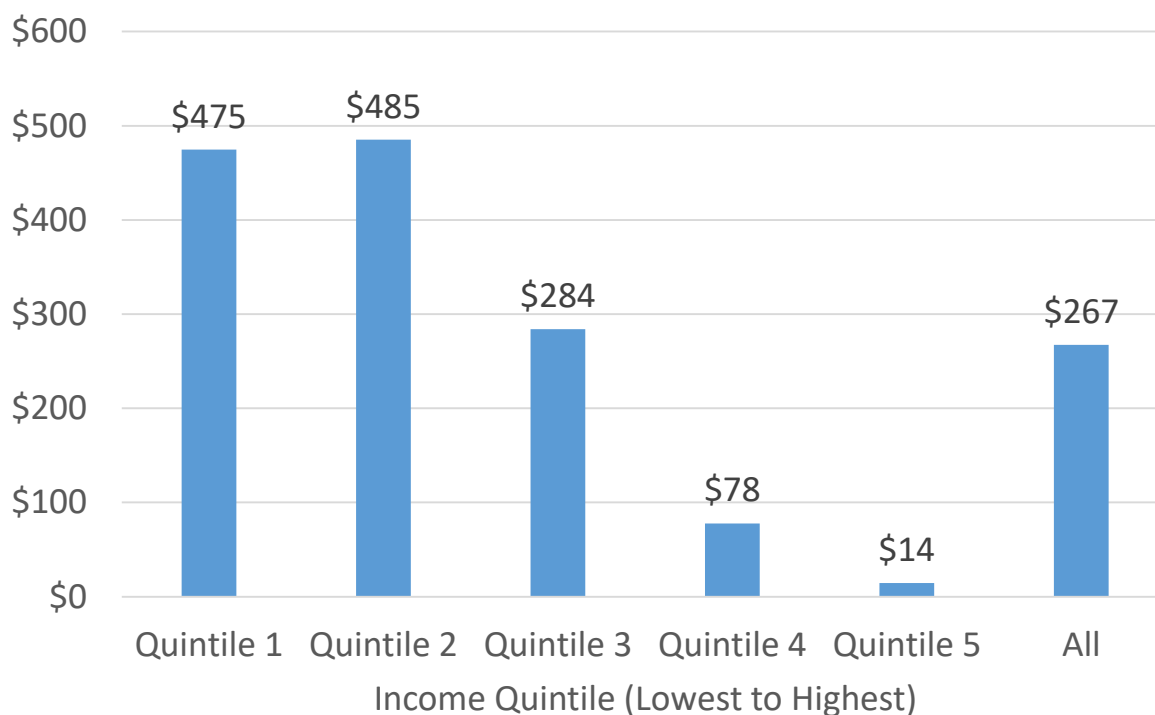
Source: ANU PolicyMod.

The results clearly show that the increases in the level of the modelled welfare payments are heavily targeted towards low income households with Quintile 1 household incomes (lowest income households) increasing by 1.6 per cent as a result of the policy changes, whereas the disposable household income of those in income Quintile 5 are effectively unchanged. Middle income households (Quintile 3) disposable household income increases by a very modest 0.3 per cent.⁸ The Australian welfare system is tightly targeted based on income and asset testing so it should be no surprise that increases in welfare benefit low income households almost exclusively. The welfare payments that benefit the most are those either currently or previously (in the case of the parenting payment single policy change) on JobSeeker and related payments which are the least generous payments in the welfare system.

⁸ Income quintiles represent each 20th percentile of the income distribution where income is defined as disposable income adjusted by the OECD modified version of an equivalence scale. Quintile 1 is the lowest 20 per cent while Quintile 5 is the highest income decile or top 20 per cent.

Figure 2 provides the same information as Figure 1 except showing the average per annum dollar change in disposable income for households.

Figure 2 Average Impact of 2023-24 welfare measures on disposable household income, \$ change per annum, by income quintile, 2023-24

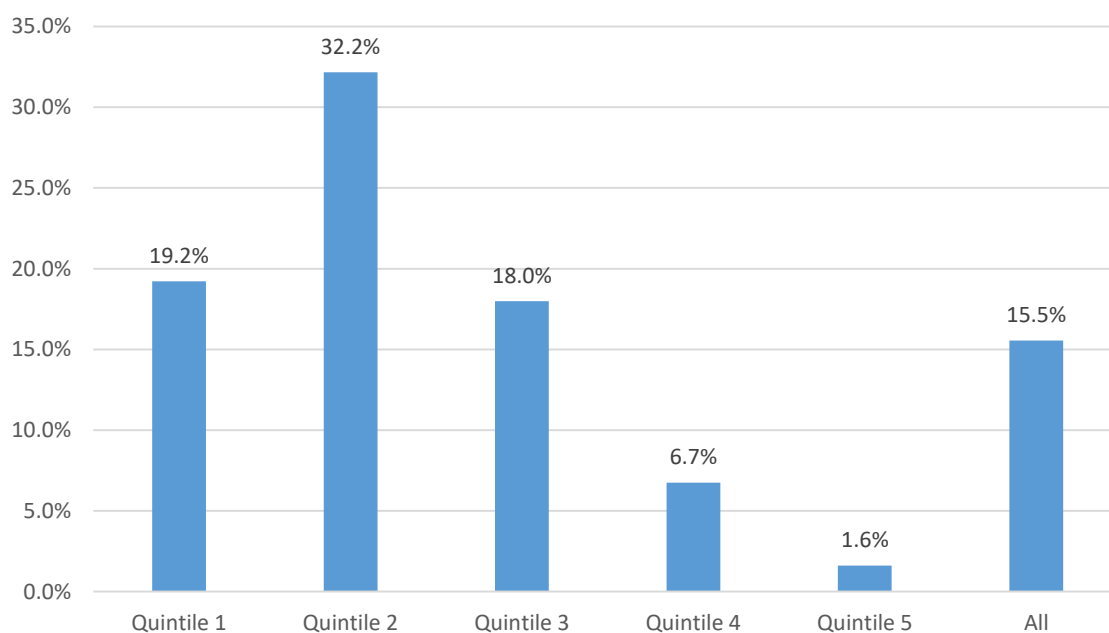


Source: ANU PolicyMod.

The dollar impact in Figure 2 shows again that the lower income households benefit the most. Quintile 2 (20th to 40th percentile of the income distribution) gains the most at an average of \$485 per year per household. The top 40 per cent of households gain very little as very few are likely to contain individuals on payments such as JobSeeker or Rent Assistance.

Figure 3 shows the share of households in each income quintile that gained from the welfare policy changes. Again, the lower income households were most likely to be beneficiaries. Around 19 per cent of quintile 1 households gained and 32 per cent of quintile 2 households gained. By quintile 5 only 1.6 per cent of households gained. In raw numbers, a total of 1.64 million households (15.5%) gained with the rest not impacted by the welfare measures. Around 758,000 (7.2%) households gained whose main source of income was wages and salaries while the remainder were mostly households mostly dependent upon welfare payments for income.

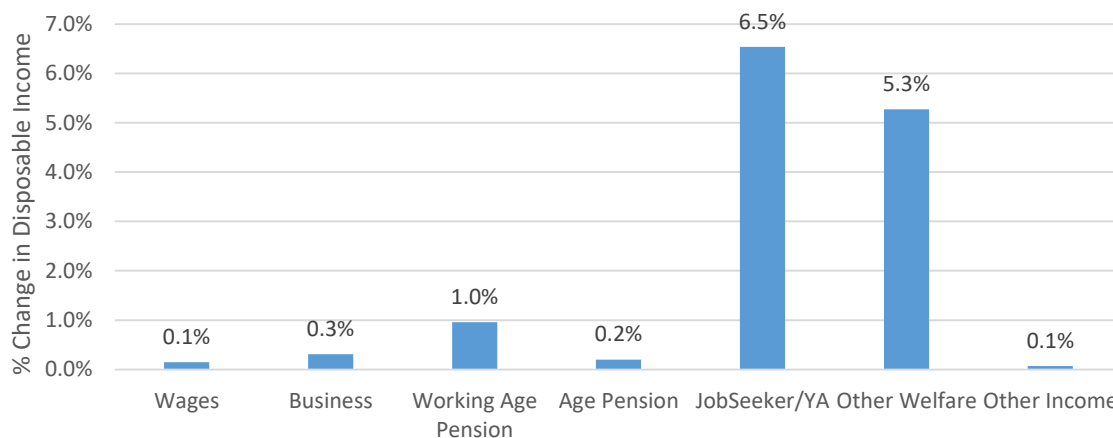
Figure 3 Per cent of households who gain from 2023-24 Budget welfare changes by income quintile, 2023-24



Source: ANU PolicyMod.

Figure 4 shows that majority of income gains go to households whose main source of income is either JobSeeker or ‘Other’ welfare households. The ‘Other’ welfare category will contain many households who receive the JobSeeker payment but their main source of income ‘was’ family payments but have now been shifted from the JobSeeker payment to the more generous parenting payment. Other households may have some welfare recipients in the household but these cases are rare so the ‘gains’ are very small.

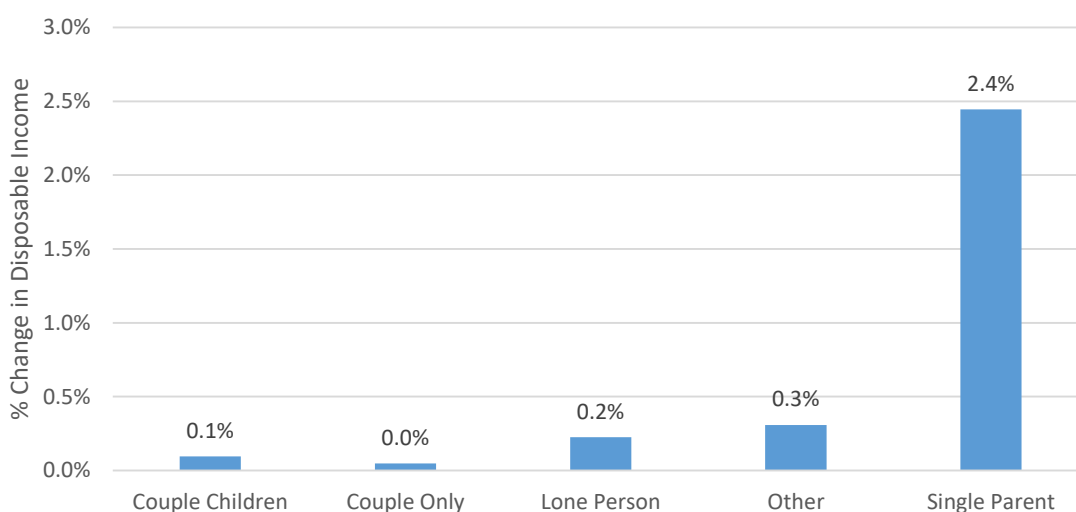
Figure 4 Average Impact of 2023-24 Welfare Measures on disposable household income, % change, by Main Source of Income, 2023-24



Source: ANU PolicyMod.

Figure 5 shows that the budget benefits single parents more than any other family type (2.4% increase in disposable income). Those single parents who shift from JobSeeker to parenting payment receive a very substantial increase in welfare payments while singles and couples will at most receive a much less substantial gain from an increased JobSeeker and, where applicable, Rent Assistance.

Figure 5 Average Impact of 2023-24 Welfare Measures on disposable household income, % change, by Household Type, 2023-24



Source: ANU PolicyMod.

The welfare measures, costing around \$2.8 billion in 2023-24, lower the poverty rate from around 13.3 per cent to 12.9 per cent and decrease the number of persons in poverty by 110,000. The poverty gap across all households decreases from \$1,533 per year to \$1,482 per year (a 3.3 per cent reduction). Perhaps of more interest given the policy change the poverty gap for those whose main source of income is JobSeeker and related payments is expected to drop from \$10,353 to \$8,989 per year (a 13.3 per cent reduction).

Table 2 shows the gains by region (SA3) from the welfare change. The region with the largest gain is Playford (North Adelaide) with an average gain, across all households, of \$843 per year or 1.1 per cent increase in disposable income. The next largest gains are in Fairfield (Western Sydney), Mount Druitt (West Sydney), Browns Plains (South Brisbane), and Tullamarine-Broadmeadows (Melbourne) The smallest gains are in Ku-ring-gai (North Sydney) and South Canberra at \$108 per year and then North Sydney-Mosman, Cottesloe-Claremont (Perth) and Bayside (Sydney).

Table 2 SA3 Region Impact on Disposable Income from welfare measures only – top and bottom 20

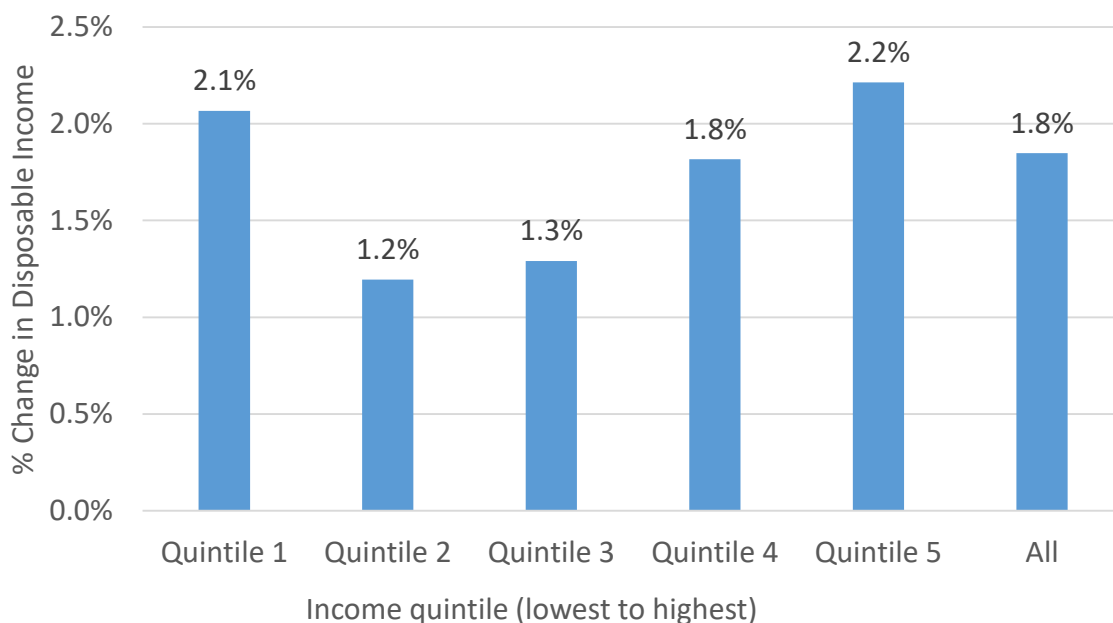
Rank	Top 20	Average Gain	% Income	Bottom 20	Average Gain	% Income
1	Playford	\$843	1.1%	Ku-ring-gai	\$108	0.0%
2	Fairfield	\$803	0.9%	South Canberra	\$108	0.1%
3	Mount Druitt	\$790	0.8%	North Sydney - Mosman	\$111	0.1%
4	Browns Plains	\$690	0.7%	Cottesloe - Claremont	\$122	0.1%
5	Tullamarine - Broadmeadows	\$661	0.7%	Bayside	\$123	0.1%
6	Caboolture	\$661	0.7%	Manly	\$125	0.1%
7	Merrylands - Guildford	\$643	0.7%	Pittwater	\$134	0.1%
8	Springfield - Redbank	\$631	0.6%	Boroondara	\$136	0.1%
9	Cairns - South	\$624	0.7%	Chatswood - Lane Cove	\$138	0.1%
10	Springwood - Kingston	\$621	0.7%	Dural - Wisemans Ferry	\$138	0.1%
11	Forest Lake - Oxley	\$617	0.7%	Molonglo	\$142	0.1%
12	Beenleigh	\$611	0.7%	Stonnington - East	\$143	0.1%
13	St Marys	\$609	0.6%	Woden Valley	\$146	0.1%
14	Brighton	\$599	0.7%	Kenmore - Brookfield - Moggill	\$148	0.1%
15	East Arnhem	\$596	0.6%	Manningham - East	\$150	0.1%
16	Brimbank	\$595	0.6%	Baulkham Hills	\$153	0.1%
17	Beautesert	\$590	0.7%	Weston Creek	\$161	0.1%
18	Campbelltown (NSW)	\$587	0.6%	Yarra	\$162	0.1%
19	Salisbury	\$574	0.7%	Pennant Hills - Epping	\$163	0.1%
20	Bankstown	\$573	0.5%	Sutherland - Menai - Heathcote	\$166	0.1%

Source: ANU PolicyMod.

3.2 The 2023-24 welfare measures combined with child care and stage 3 tax cuts

To better understand the expected impact of policy over the short term we combine the welfare policy change with the July 2023 increase in CCS (child care) and the stage 3 tax cuts due in July 2024. The impact of the changes becomes mildly regressive with more substantial increases (2.2 per cent) as a share of disposable income for the top 20 per cent of income households. The bottom 20 per cent also receives a modest boost at 2.1 per cent, however, this drops away for the next 40 per cent with increases of just 1.2 and 1.3 per cent.

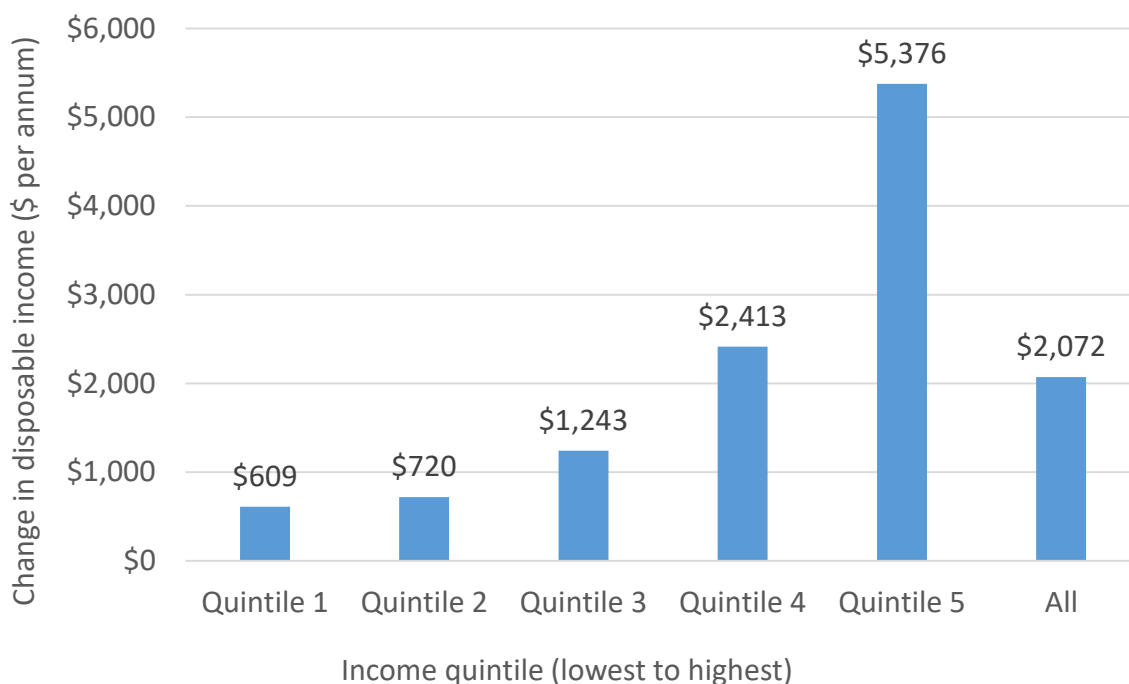
Figure 6 Combined impact of welfare measures, CCS and Stage 3 tax cuts on household disposable income, % change, by household income quintile, 2023-24



Source: ANU PolicyMod.

In dollar terms the impact is substantial for higher income households reflecting the larger per cent increase applying to much higher incomes. The top 20 per cent will gain \$5376 in income as a result of the combined policy changes by 2024 relative to no policy change while the bottom 20 per cent only gain \$609 dollars in 2024. Middle income households (quintile 3) gain \$1243.

Figure 7 Average Impact of the 2023 and 2024 policy change on household disposable income, \$ per annum, by income quintile, 2023-24



Source: ANU PolicyMod.

Overall, the results show a moderately regressive outcome from policy change by 2024. When viewed from the perspective of the share of dollars the top income group clearly gains the most with around 52 per cent of gains going to the top 20 per cent and only 6 per cent going to the bottom 20 per cent.

From a regional perspective, the main beneficiaries in terms of income changes from policy change by 2024 once the welfare changes, child care subsidy increase and stage 3 tax cuts are all accounted for are high income SA3 regions. The 3 SA3s with the largest gains are Manly (nearly \$5,000 per year), Leichardt and Ku-ring-gai all of which are high income regions of inner and northern Sydney. The largest gains in Table 3 are dominated by high income regions of Sydney with 11 out of the top 12 regions to gain the most being in Sydney’s high income regions.

Table 3 SA3 Region Impact on Disposable Income from welfare changes, child care and stage 3 tax cuts – top and bottom 20

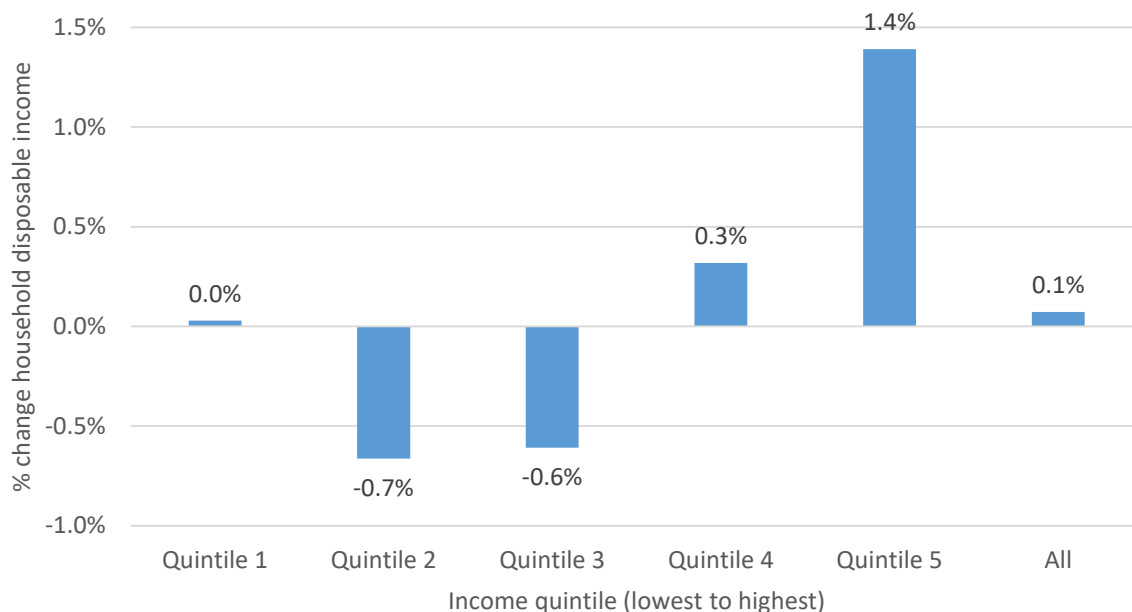
Rank	Top 20	Average Gain	% Income	Bottom 20	Average Gain	% Income
1	Manly	\$4,998	2.1%	Yorke Peninsula	\$815	1.1%
2	Leichhardt	\$4,796	2.3%	Maryborough - Pyrenees	\$959	1.3%
3	Ku-ring-gai	\$4,750	2.1%	West Coast	\$998	1.3%
4	Cottesloe - Claremont	\$4,292	2.1%	Fleurieu - Kangaroo Island	\$1,017	1.3%
5	Chatswood - Lane Cove	\$4,104	2.3%	Bribie - Beachmere	\$1,025	1.3%
6	North Sydney - Mosman	\$4,053	2.2%	Maryborough	\$1,038	1.5%
7	Bayside	\$3,985	2.1%	Mid North	\$1,040	1.4%
8	Baulkham Hills	\$3,924	2.2%	Innisfail - Cassowary Coast	\$1,040	1.3%
9	Rouse Hill - McGraths Hill	\$3,912	2.4%	Great Lakes	\$1,059	1.4%
10	Warringah	\$3,791	2.1%	Charters Towers - Ayr - Ingham	\$1,066	1.3%
11	Pennant Hills - Epping	\$3,738	2.1%	Gippsland - East	\$1,070	1.3%
12	Pittwater	\$3,702	1.9%	Kempsey - Nambucca	\$1,084	1.5%
13	Kenmore - Brookfield - Moggill	\$3,693	2.3%	Taree - Gloucester	\$1,090	1.4%
14	Boroondara	\$3,642	2.1%	Murray and Mallee	\$1,093	1.4%
15	Eastern Suburbs - North	\$3,608	2.3%	Tablelands (East) - Kuranda	\$1,094	1.3%
16	South Canberra	\$3,550	2.1%	Burnett	\$1,099	1.5%
17	Canada Bay	\$3,542	2.2%	Gympie - Cooloola	\$1,109	1.4%
18	Dural - Wisemans Ferry	\$3,523	1.9%	Inverell - Tenterfield	\$1,112	1.5%
19	Manningham - East	\$3,411	2.1%	North East	\$1,119	1.4%
20	Marrickville - Sydenham - Petersham	\$3,404	2.2%	South Coast	\$1,121	1.3%

The regions that will gain the least are typically lower income and more remote and regional areas. The SA3 with the smallest gain in income by 2024 is Yorke Peninsula in regional South Australia with a gain of just \$815 per year. Regional Victoria's Maryborough-Pyrenees is next at \$959 and Western Australia's West Coast is next at \$998. The remainder of the table is dominated by a range of regional and coastal SA3s such as Bribie Island, Kempsey, Burnett, Gympie and Taree-Gloucester. These regions tend to be low income and have an older demographic and more likely to be of pension age than of an eligible age for the JobSeeker payment and therefore be less likely to gain from this budget where the main welfare increases were working age recipients.

3.3 The 2023 combined impact of stage 1,2 and 3 tax cuts relative to 2017 system

There has been considerable discussion in Australia about the stage 3 tax cuts and their regressive nature and their cost over the longer term. Previous ANU research shows that technically the stage 3 tax cuts do lower revenue by a significant amount over a ten year period (Phillips 2020). Figure 8 shows combined impact of the stage 1, 2 and 3 tax cuts when bracket creep is removed since 2017. The figure shows that for 2024 the main beneficiaries will be those in the top 20 per cent (Quintile 5) who benefit by 1.4 per cent of their disposable income. The gains for lower income households are either marginally positive or negative. Essentially, the chart shows that bracket creep has been more than compensated for amongst the highest income category but lower income households are either very moderately under or overcompensated.

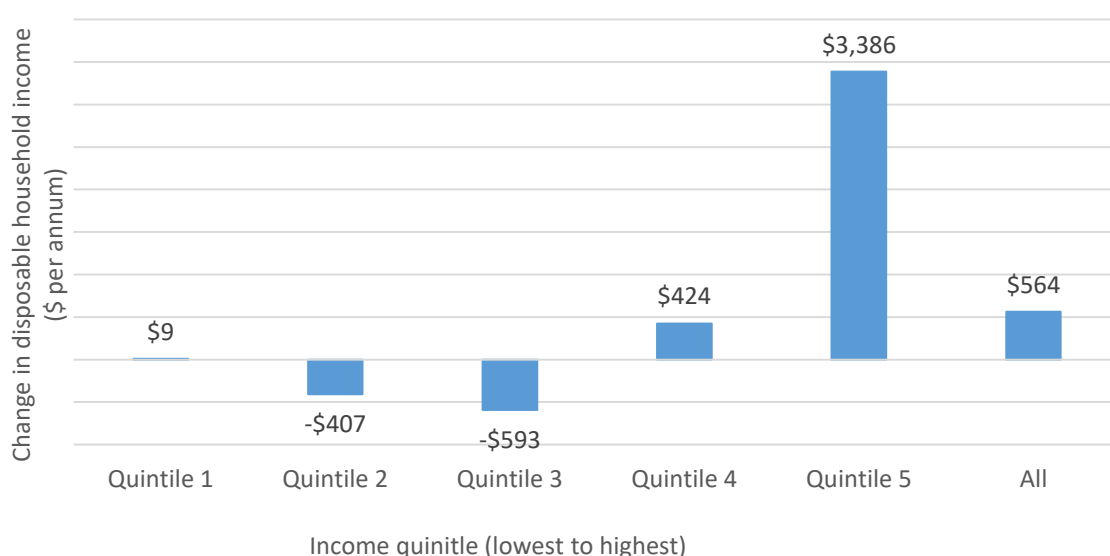
Figure 8. Combined impact of Stage 1/2/3 Tax Cuts relative to 2017 tax system on disposable household income, % change, by income quintile, 2023-24



Source: ANU PolicyMod.

Figure 9 shows that in terms of the average dollar impact on disposable income it is clear that the top income quintile gains the most (\$3,386 per year) while other households either go up or down but by much smaller amounts. For example, middle income (Quintile 3) goes backwards by \$593 per year, on average.

Figure 9. Combined impact of Stage 1/2/3 Tax Cuts relative to 2017 tax system on disposable household income, \$ per annum change, by income quintile, 2023-24



Source: ANU PolicyMod.

Conclusion

The Commonwealth Budget for 2023 provided a range of measures that benefit low income Australian's such as the increase to the JobSeeker payment, Rent Assistance and the changes to parenting payment. These changes are expected to increase incomes of mostly the lowest income Australians by \$2.8 billion in 2023-24.

When combined with the stage 3 tax cuts and child care subsidy changes in 2024 and 2023 respectively the income impacts are much more substantial with stage 3 tax cuts adding \$18 billion per year to household disposable income and child care changes \$1.3 billion per year. When taken together these changes will boost the incomes of Australian's significantly but the majority of the benefit goes to higher income households. The gains are very substantial in dollar terms but less substantial in terms of per cent change in income.

The stage 3 tax cuts are one of three stages of tax reform implemented by the previous government. When considered over the longer term (since their inception in 2018) the fiscal cost is much less substantial after bracket creep is accounted for. The impact remains regressive with most of the dollar benefit going to high income households and the only real income gains also to high income households.

References

Commonwealth of Australia (2023). *Budget Paper No. 2: Budget Strategy and Outlook*, Commonwealth of Australia, Canberra.

Commonwealth of Australia (2023). *Budget Paper No. 1: Budget Measures*, Commonwealth of Australia, Canberra.

Interim Economic Inclusion Advisory Committee (2023). '2023-24 Report to the Australian Government.'

Phillips, B., Gray, M. and R. Webster (2020). [Research Note: Modelling Coalition Personal Income Tax Policies 2017 to 2029](#), ANU Centre for Social Research and Methods, Australian National University, Canberra.

Tanton, R. Vidyattama, Y. Nepal, B. and J. McNamara (2011). 'Small Area Estimation using a Reweighting Algorithm.' *Journal of the Royal Statistical Society Series A: Statistics in Society*, 174(4): 931-951.