

Measuring the Distributional Impacts of Tax Reform with Limited Data: Some Evidence for New Zealand

Presentation to the NZAE Annual Conference
Auckland, June 30th, 2010

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Budget 2010: Main tax changes

	Before Budget 2010	After** Budget 2010
<u>Income tax:</u>		
Thresholds:		
\$0 - \$14,000	12.5%	10.5%
\$14,001 - \$48,000	21%	17.5%
\$48,001 - \$70,000	33%	30%
> \$70,000	38%	33%
<u>GST:</u>		
	12.5%	15%
<u>Corporate tax:</u>		
Statutory rate	30%	28%
'Thin cap' rules for foreign-owned companies	75%	60%
QCs* & LAQCs*	No 'flow-through' for profits	Full 'flow-through'
<u>Depreciation rules:</u>		
Depreciation 'loading' on new plant/equip.	20%	0%
Depreciation on buildings (> 50 years)	3% (db) [†] or 2% (sl) [†]	0%
<u>Savings:</u>		
Trusts	33%	33%
Portfolio Investment Entities (PIEs)	30%	28%
Unit trusts, Superannuation Funds	30%	28%

Tax incidence

- Who bears the burden of each tax?
- Direct and indirect impact
- Usual assumptions of incidence:
 - Income tax: income earner
 - GST: consumers
 - Corporate tax: wage earners? equity owners?
 - Property: tenants? landlords?
- Measures of inequality/poverty:
 - Fixed and relative poverty line (50%/60%)
 - Inequality across income distributions (Gini coefficient, 80:20 ratio)

Inequality & poverty measures

Budget 2010 : PIT + GST (+ 'compensation')

	Status Quo		1 Oct 2010	
	Equality measures		Equality measures	
Gini coefficient	0.348		0.351	
80/20 ratio	2.893		2.906	
Poverty reference line	Median household disposable income (equivalised)		Median household disposable income (equivalised)	
Relative reference	\$31,593		\$32,094	
Fixed reference	\$23,276		\$23,276	
Poverty line: % of reference line	% households below poverty line	% children below poverty line	% households below poverty line	% children below poverty line
50% relative	13.2%	15.6%	13.3%	16.7%
60% relative	26.1%	24.7%	26.2%	25.3%
50% fixed	5.0%	3.5%	5.0%	3.5%
60% fixed	10.5%	11.2%	10.4%	11.1%

	Status Quo	1 Oct 2010	% increase (tax package)
Gini coefficient			
HYEFU 2009	0.345	0.348	0.76%
Prelim BEFU 2010	0.348	0.351	0.79%
% increase (forecast round)	0.86%	0.88%	

Impact of tax changes by income band

Budget 2010: PIT + GST

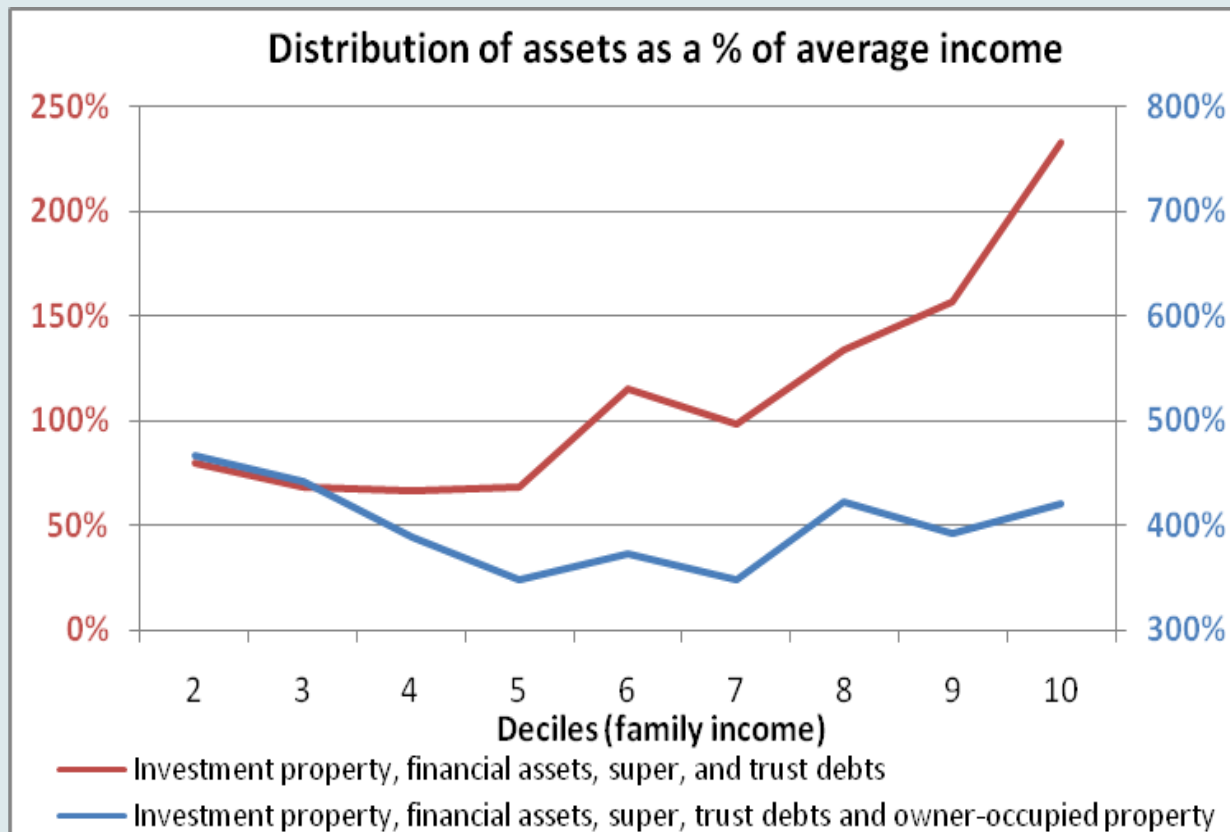


Available data on direct impact

Available data on direct distributional impact		Changes to tax bases				
		Personal tax	GST	Company tax	Changes to depreciation	New bases (capital gains/land)
Direct incidence	Individuals/ households	HES	HES	-	SoFIE	SoFIE; correlated QVNZ & Census data
	Companies	-	-	Some IRD data	Some IRD data	Some IRD data
	Trusts	-	No data	-	No data	No data
	Offshore	No data	Statistics NZ	Imputation credits sent offshore	No data	No data

Distributional analysis: TWG

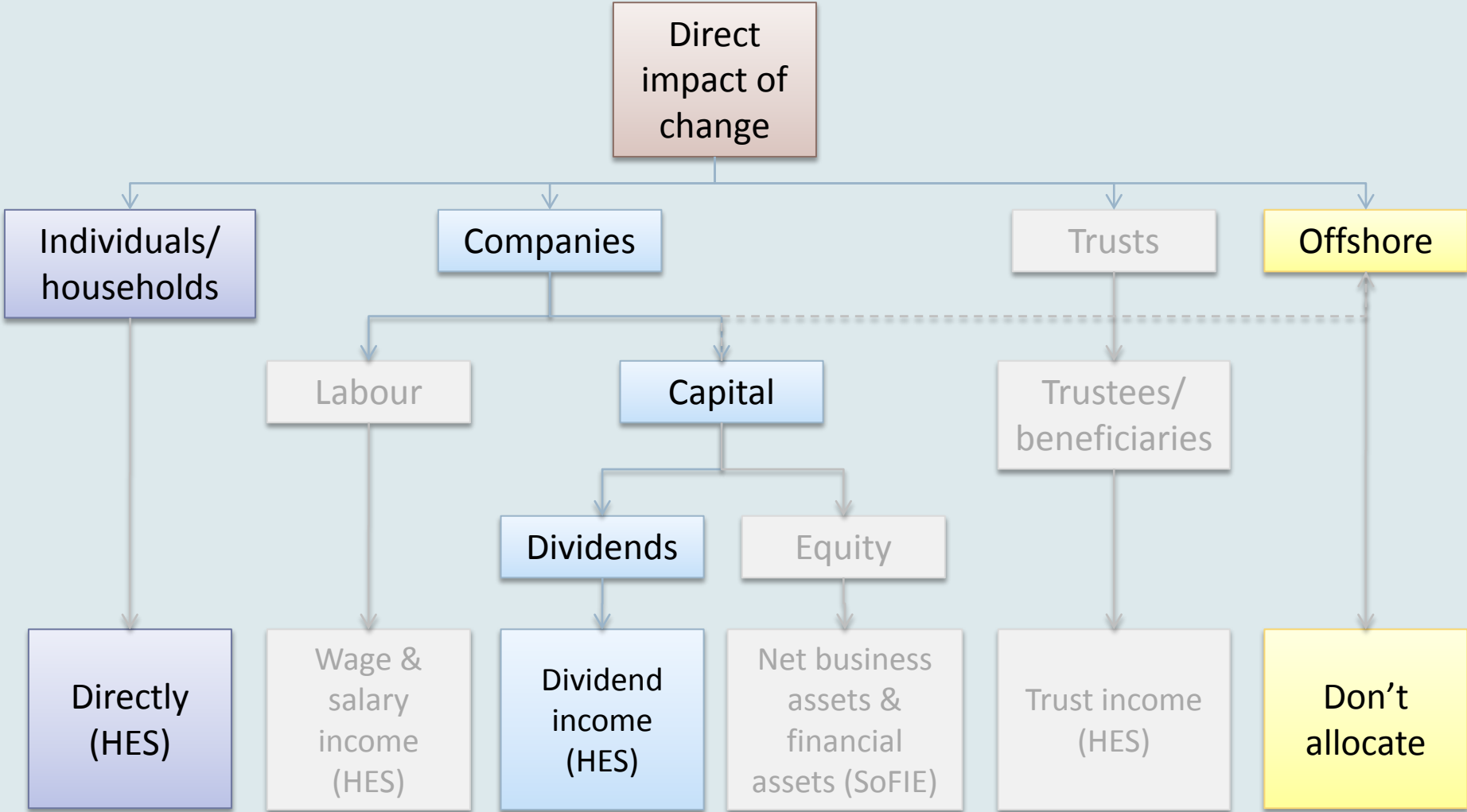
- Income tax and GST changes: HES and Taxwell
- Capital gains and land tax analysis: distribution of underlying assets using SoFIE



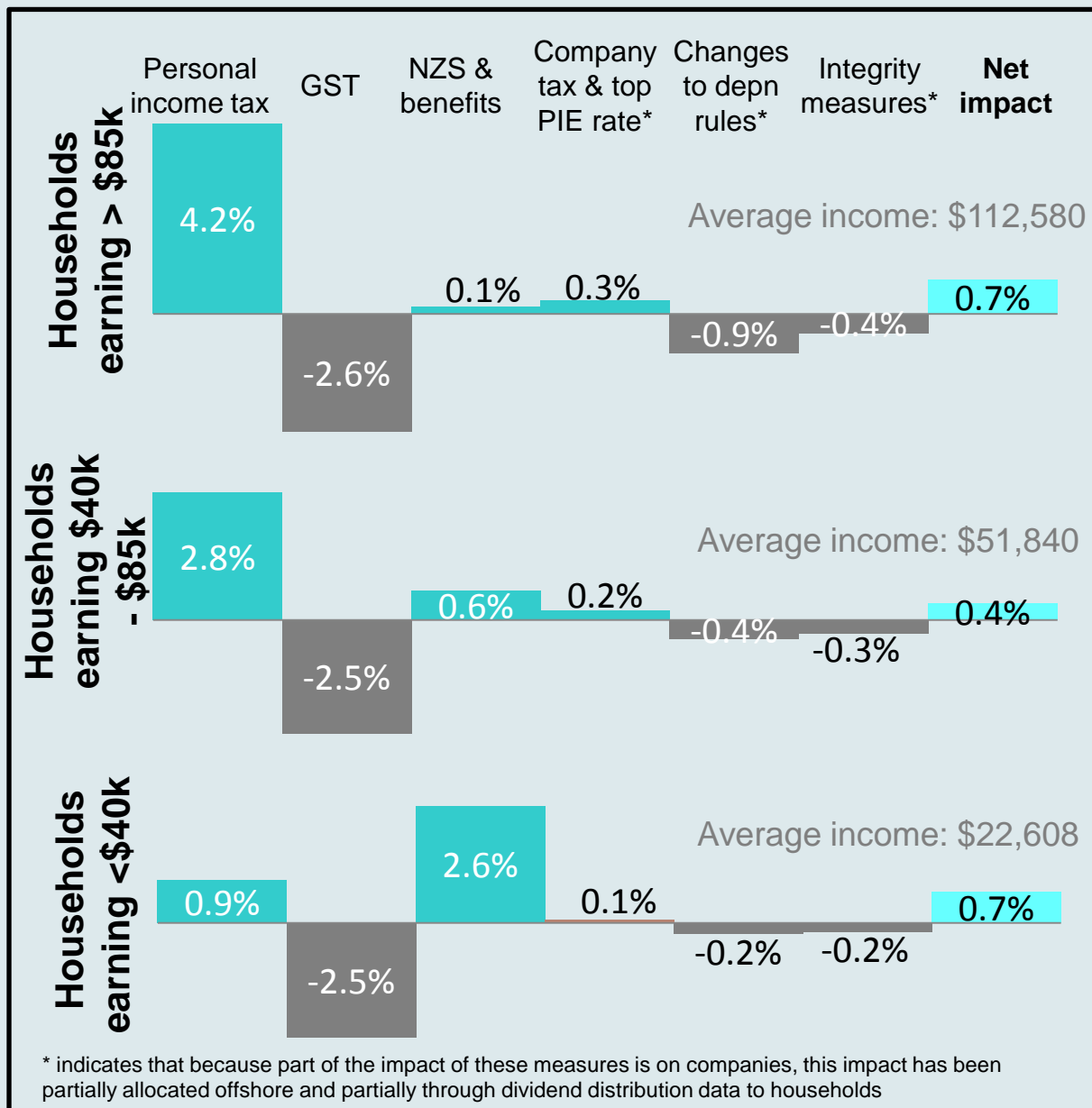
Distributional analysis: Budget 2010

- Similar analysis as for TWG on income tax, GST, and base broadening changes; also attempted to look at incidence on households
- Tax changes which indirectly impact individuals and households included changes to:
 - The company (and PIE) tax rate
 - Depreciation rules
 - LAQC rules
 - Audit activity
- Given lack of data, assumptions were required around:
 - Costings
 - Offshore impact
 - Relative direct impact between different taxpayer types
 - Allocation to households/individuals

Allocation of tax changes to individuals/households



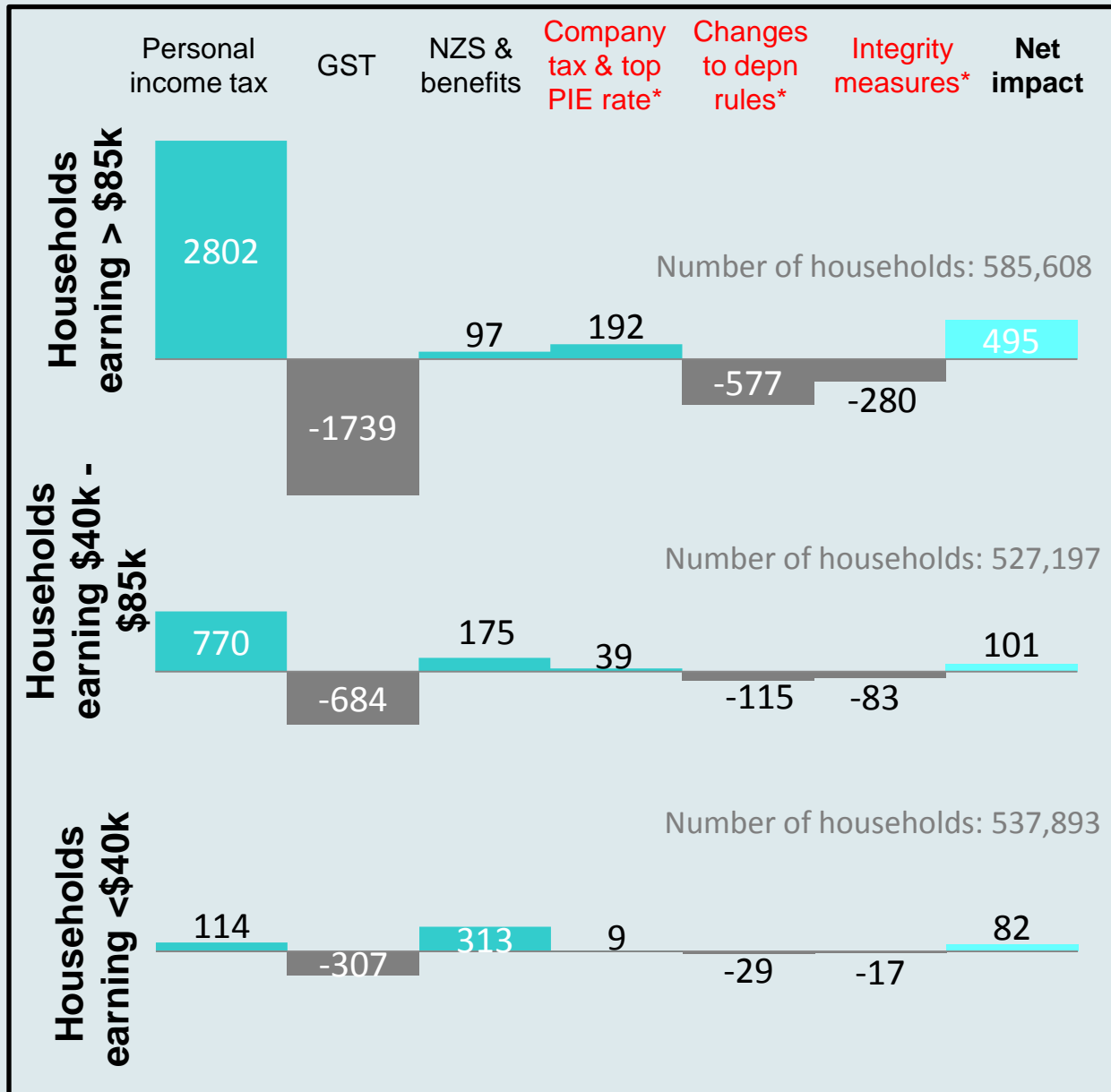
Estimated impact as % of average disposable income



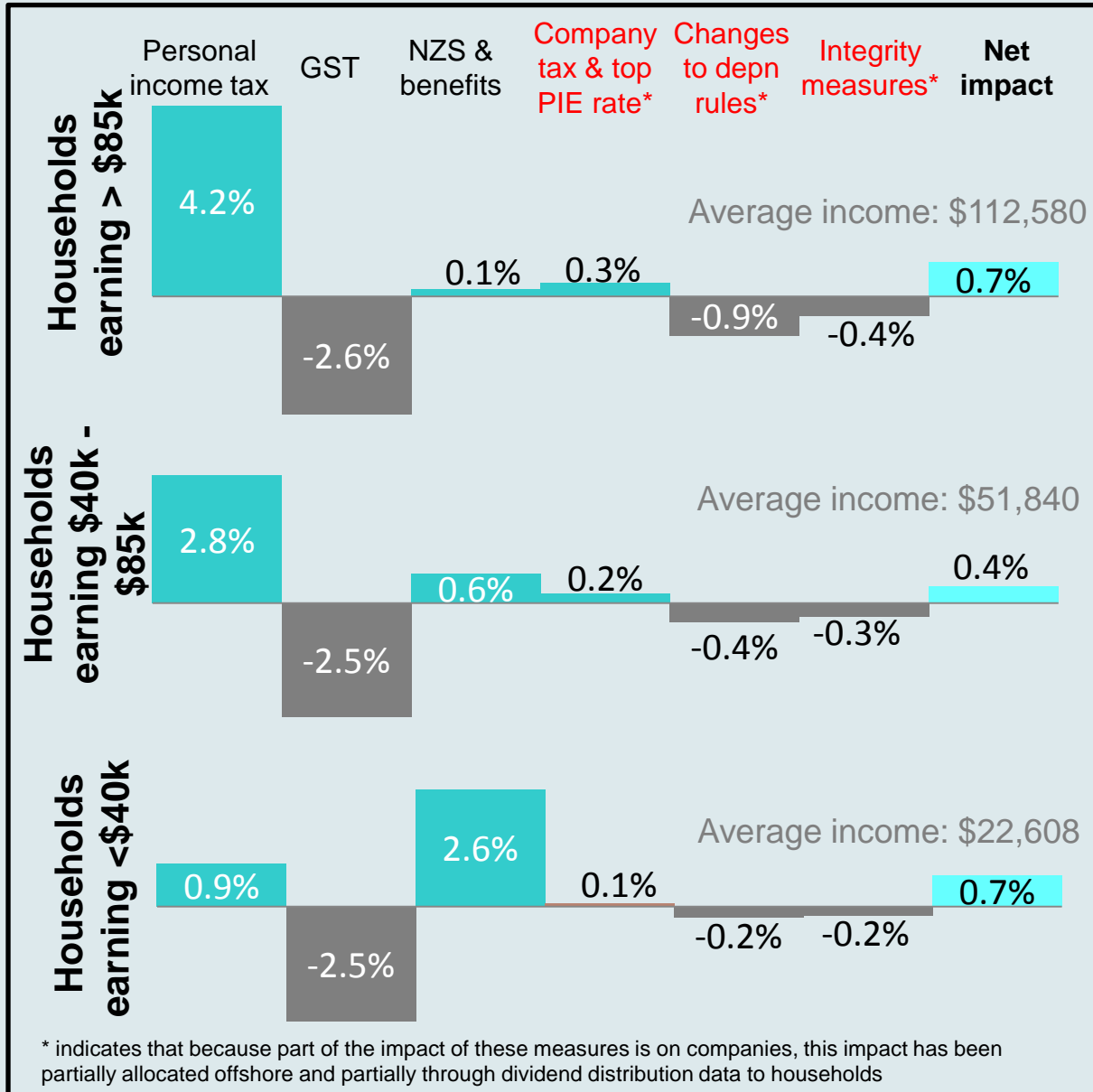
Block diagrams for Budget 2010

- 3 broad income bands of roughly equal numbers of households
- “Top down” allocation of revenue/fiscal cost of tax change
- Assumptions:
 - Costings: static; 2011/12 income year
 - Offshore impact: based on proportion of imputation credits distributed offshore
 - Allocation of tax changes:
 - Depreciable property: some residential depreciable property held directly by individuals or households
 - Audit: allocated half through the personal tax base, and half through the company tax base
 - Company tax, integrity, and remainder of the depreciation changes allocated by dividend income.

Estimated aggregate impact of tax changes (\$m)

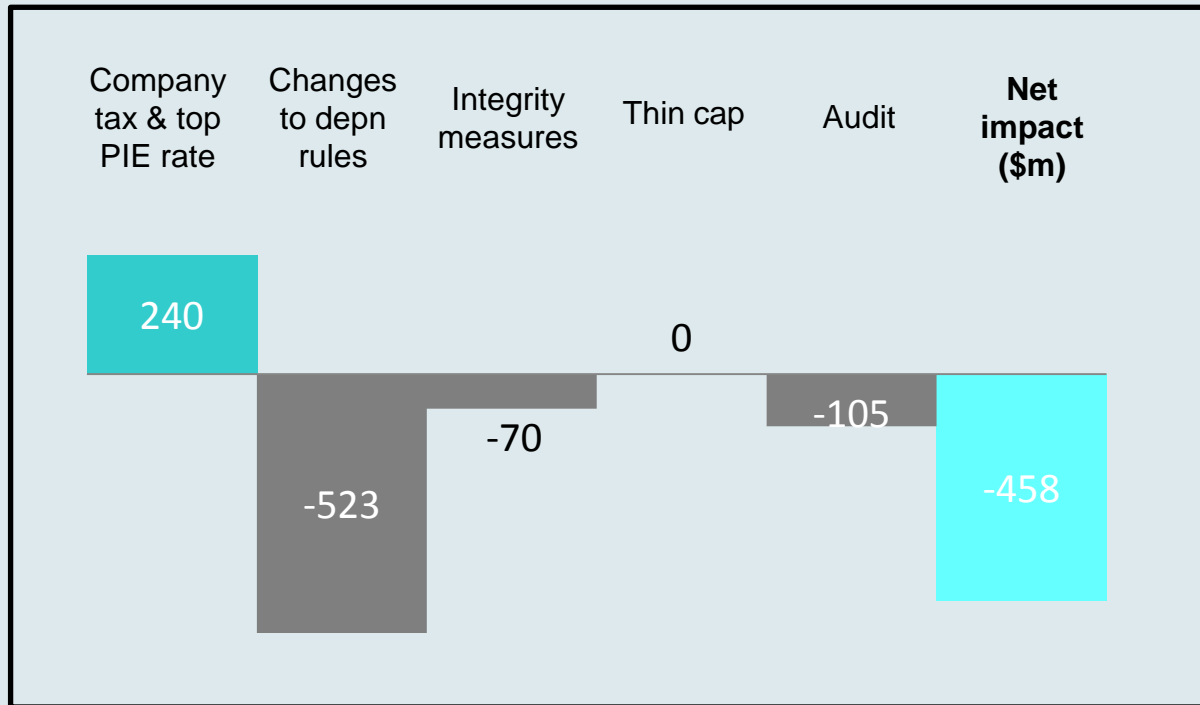


Estimated impact as % of average disposable income

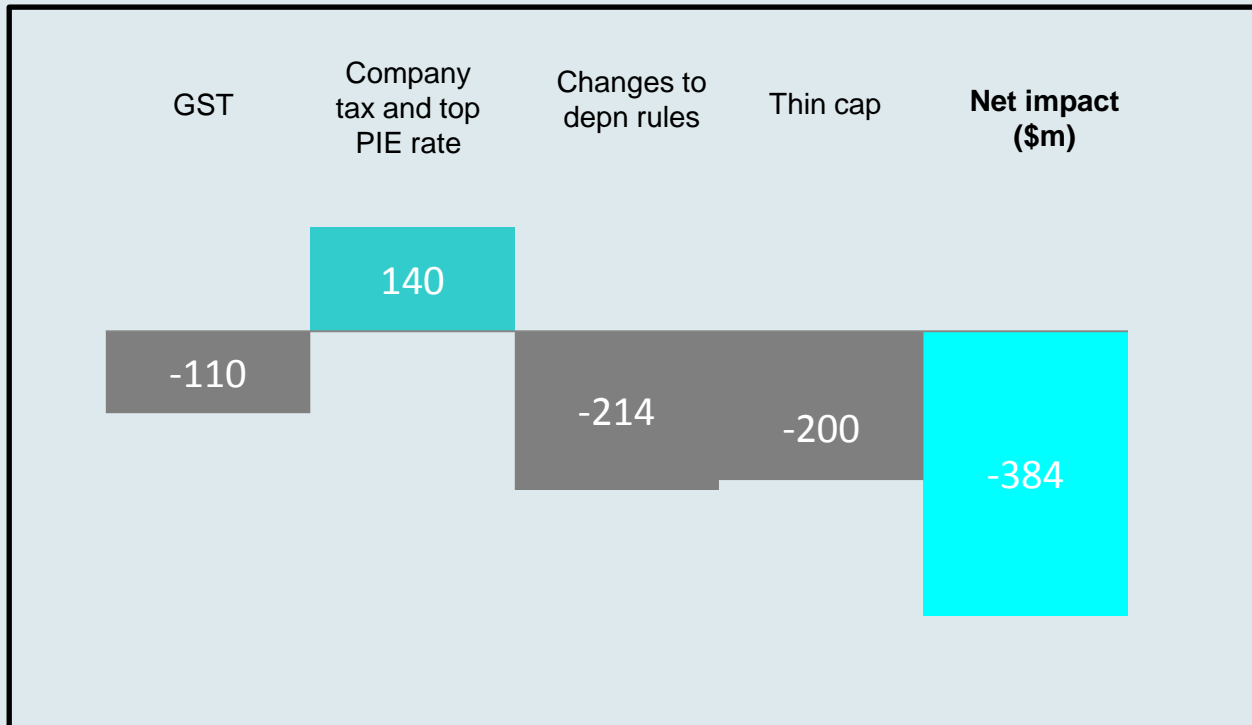


Indirect impact allocated to households and individuals (\$m)

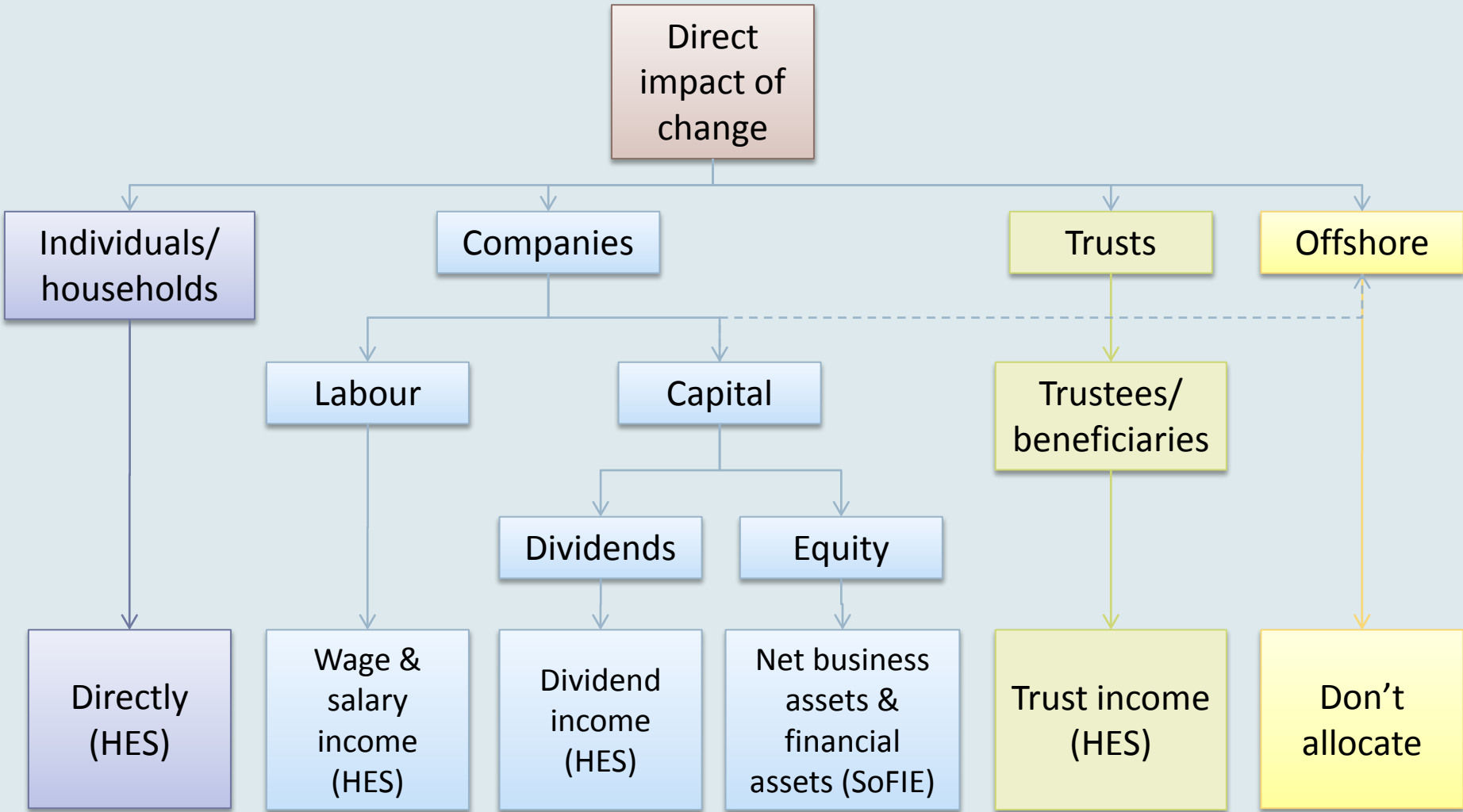
(including component allocated through companies to households/individuals.
Excludes benefits to shareholders through personal tax reductions)



Estimated offshore impact (\$m)



Allocation of tax changes to individuals/households

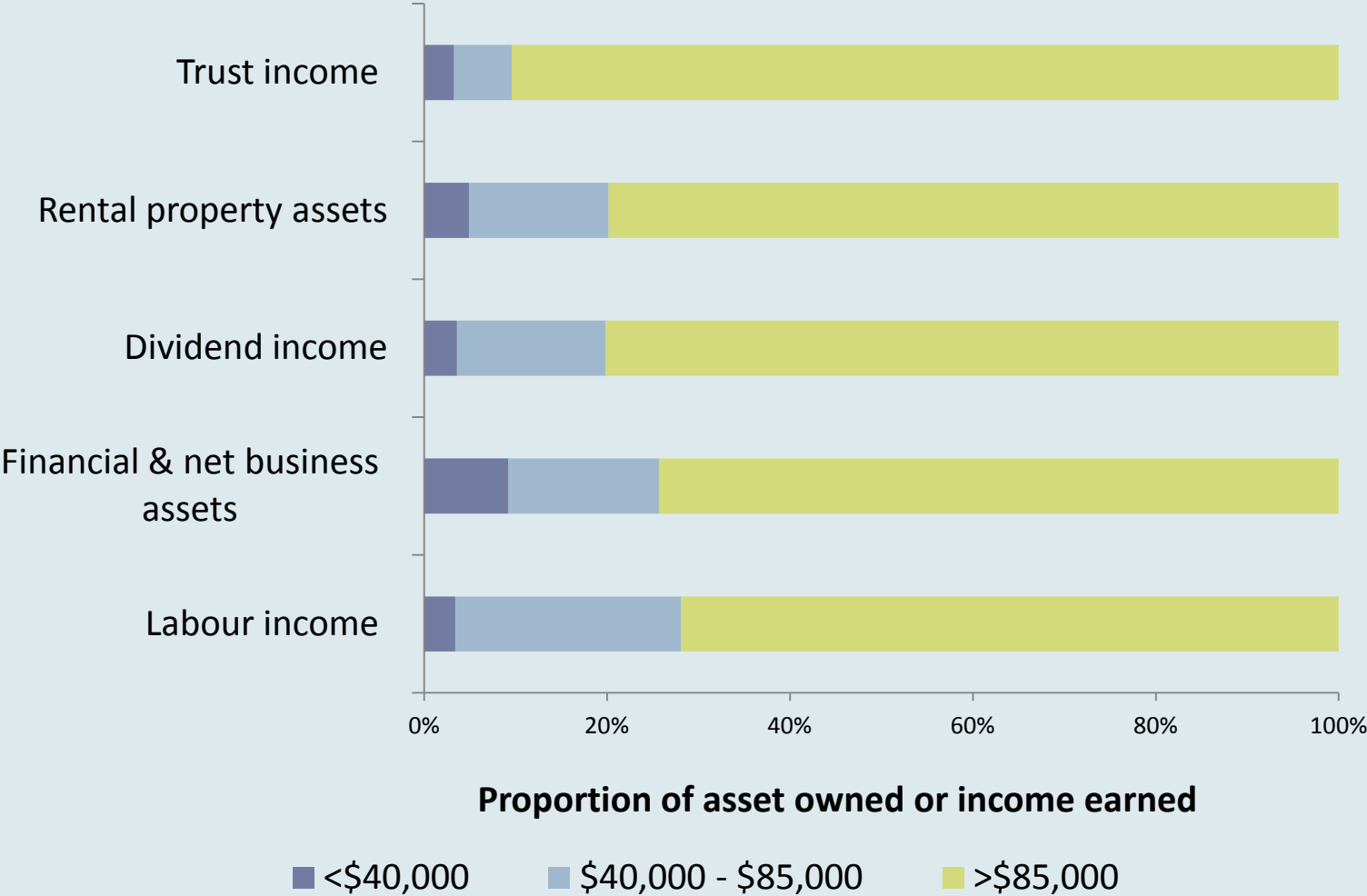


Comparison of allocation options

Total household income	<\$40,000	\$40,000 - \$85,000	>\$85,000
Labour income	3.4%	24.7%	71.9%
Financial & net business assets	9.2%	16.4%	74.3%
Dividend income	3.6%	16.3%	80.2%
Rental property assets	4.9%	15.3%	79.8%
Trust income	3.3%	6.3%	90.4%

Comparison of allocation options

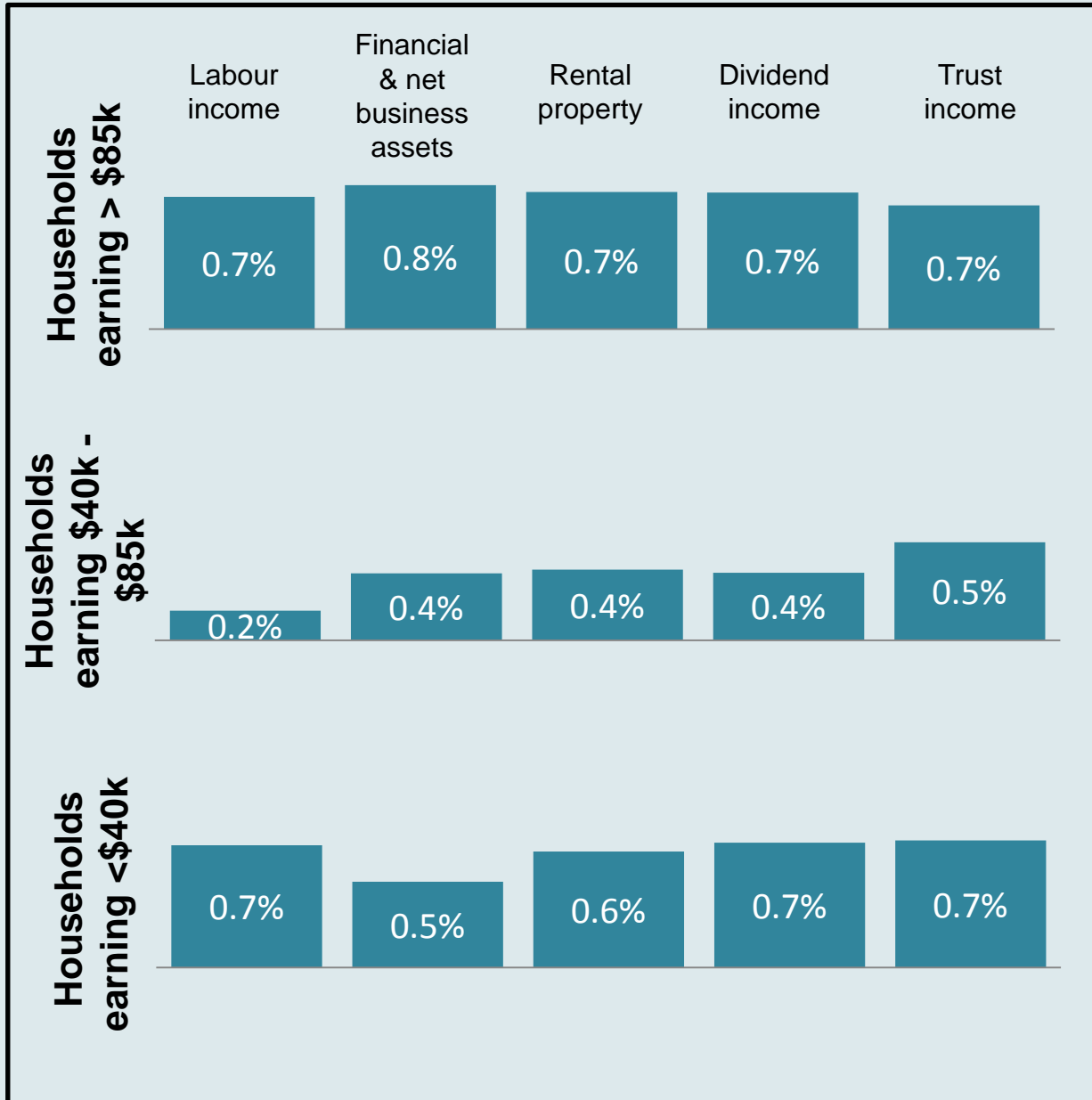
Households



Sensitivity to different allocation methods

- For tax changes allocated in this way, revenue is net negative:
 - Increasing allocation to group reduces their net position
- Allocation through labour income includes component otherwise estimated to be offshore
- Two most different methods are distribution through trust income (most unequally distributed) and labour income (including offshore component);
- The net impact of the tax change as a % of average income is not very sensitive to the allocation method used for the indirect impacts of the tax changes

Net impact as % of average disposable income



Conclusions & further work

- The method of allocation to households does not significantly change the net impact as % of average income:
 - Relative size of indirect allocation to direct allocation
 - Comparison with average income of each band
 - Distributions across each of the allocation methods examined similar
- Similar analysis possible across income bands or deciles
- Sensitivity to other assumptions- including proportion of impact offshore or property owned by households/individuals - or further data would be interesting areas for further work