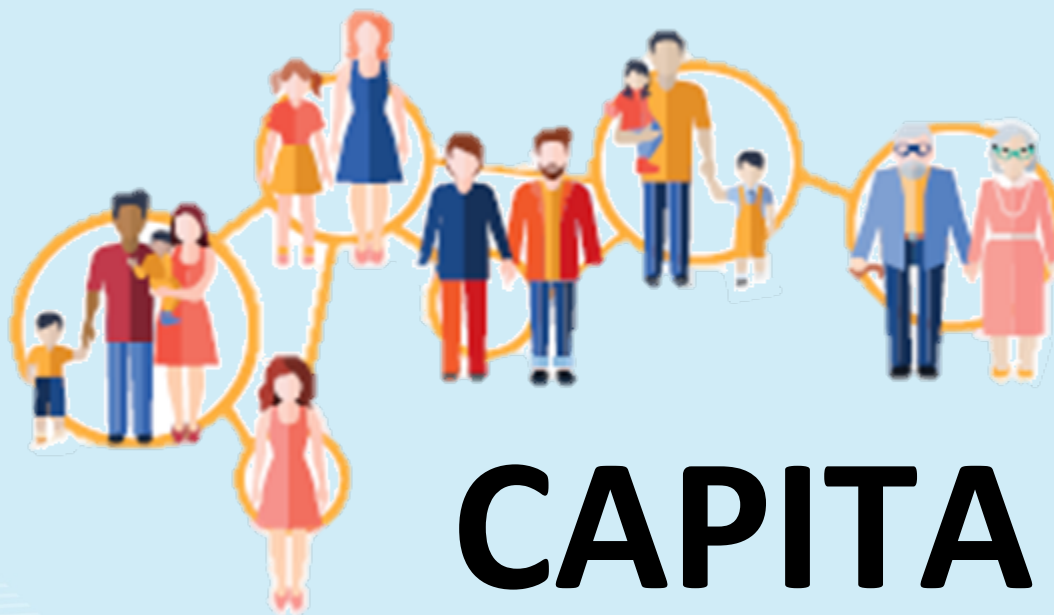




Australian Government
The Treasury

TSY/AU

Presentation to the Australian Conference of
Economists, 13 July 2018



The views in this presentation are those of the authors and not necessarily those of the Australian Treasury or of other Commonwealth agencies involved in this project

Policy insights

- Describes the impact of the current tax and transfer system on Australian households
 - *What is the average disposable income of households after taxes and transfers?*
- Assesses policy proposals by comparing the outcomes of the current & proposed systems
 - *What are the characteristics of households who benefit from increasing an income support payment?*

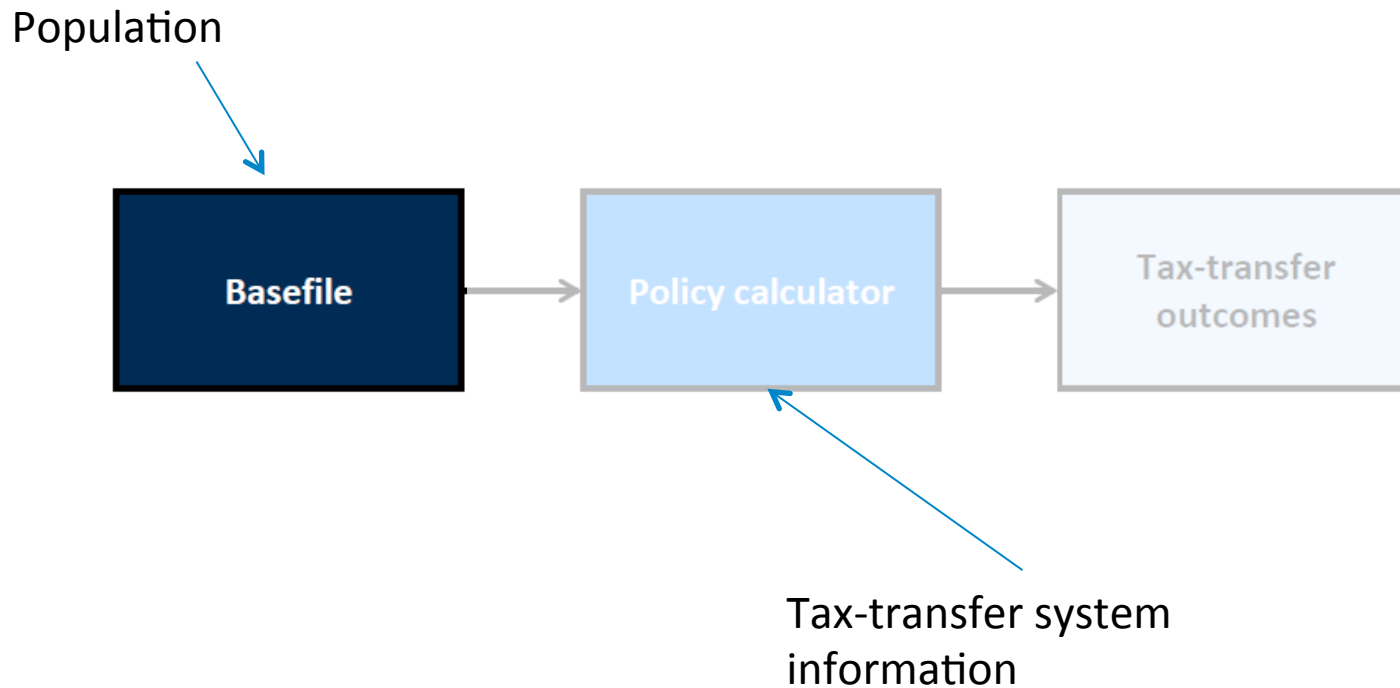
What is CAPITA?

- A distributional model
- Tax and transfer calculator/simulator
- “Non-behavioural static microsimulation model”

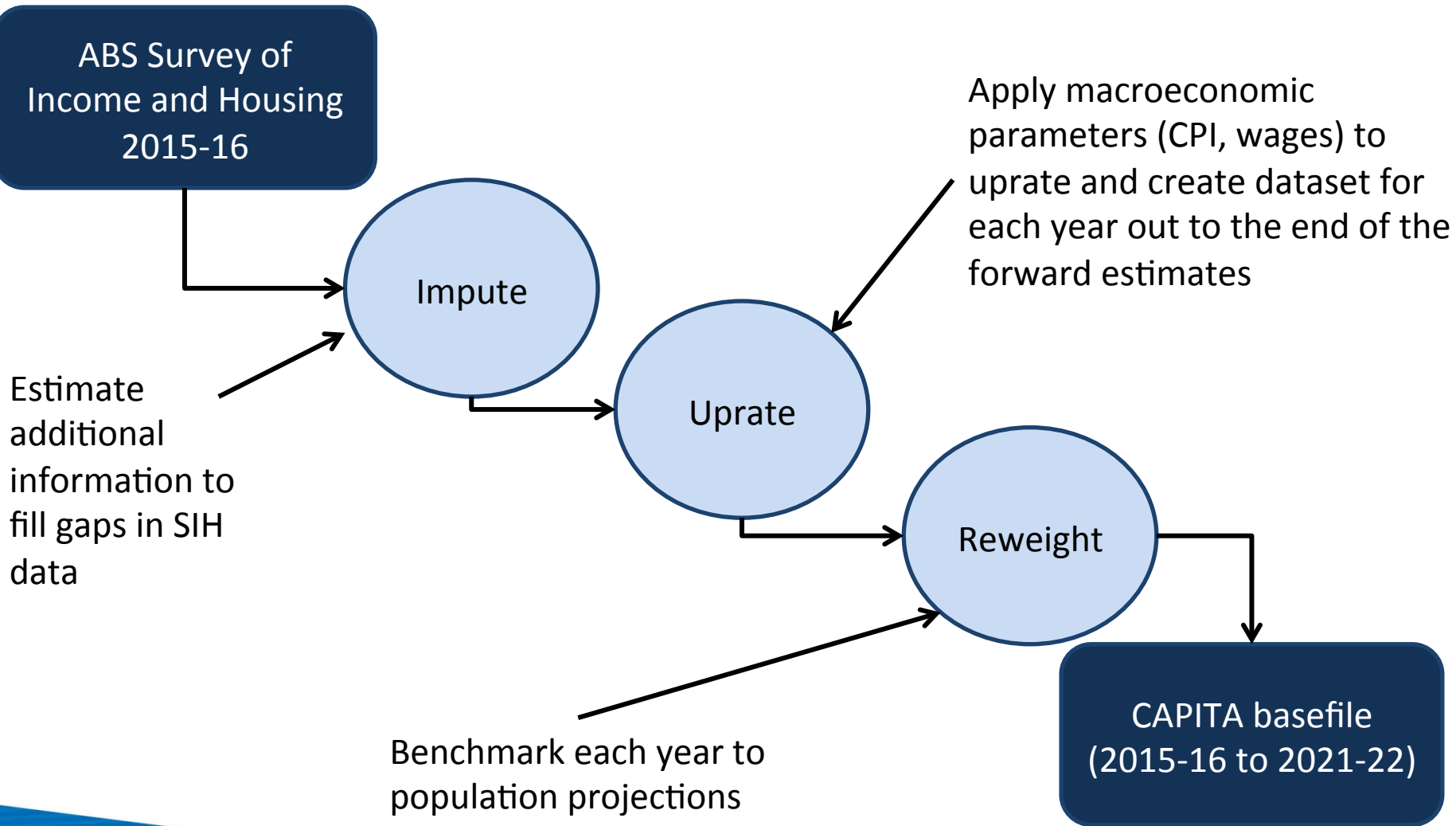
Microsimulation modelling

- Simulate policy at the individual level
- Aggregate individual outcomes for distributional analysis
 - whole population
 - sub group analysis

Structure of CAPITA



Population coverage (basefile)



Survey of income and housing (SIH)

- Covers 97 per cent of Australian population
 - Excludes people living in very remote areas and non-private dwellings (eg nursing homes)
- In 2015-16
 - 17,800 households surveyed
- Contains key data items on individual and household characteristics:
 - Age, gender, income from various sources
 - Impute the gaps in information

Uprate & benchmark

- Projecting demographics
 - Demographic and payment receipt
- Projecting incomes
 - Wages and income support
- Statically age population by changing weights of records to meet benchmarks.
 - Each observation in the SIH is assigned a weight to indicate the number of households it represents in the population.

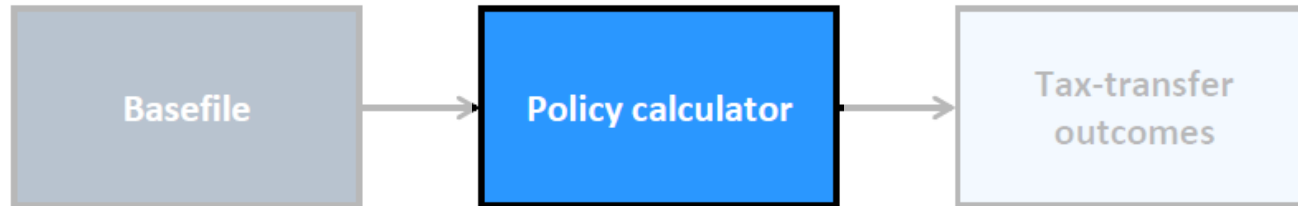
CAPITA is a static model

- Static
 - Assumes the current population is representative of the future population
 - Reweighting to capture demographic changes
- “Morning after”
 - No labour supply response to policy changes

Household microsimulation models

Model	Time horizon	Coverage	
		Population	Policy
CAPITA	Short-term	17,800 households	Broad tax-transfer system coverage
TaxMod	Short-term	2.1 million tax filers	Tax system
PoEM	Short-term	5.6 million families <i>(benefit recipient focus)</i>	Transfer system focus
MARIA	Long-term	16.2 million individuals <i>(retiree focus)</i>	Retirement income focus

Tax-transfer policy modelled

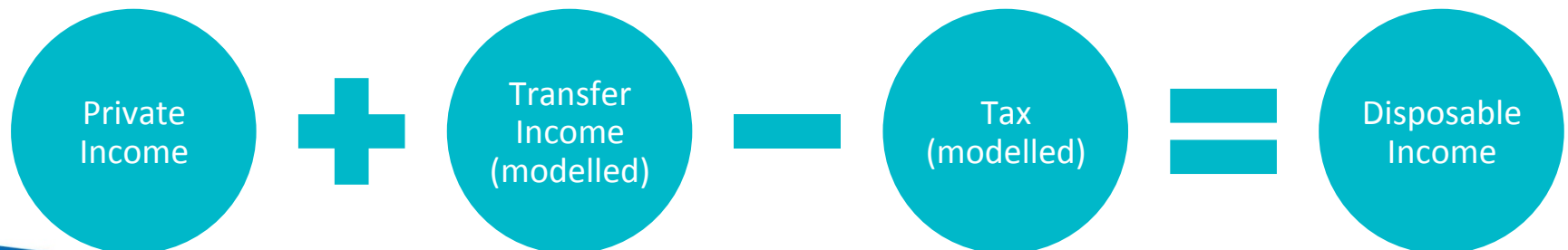


What CAPITA models

- Pensions
- Allowances
- Family Payments
- Personal taxes

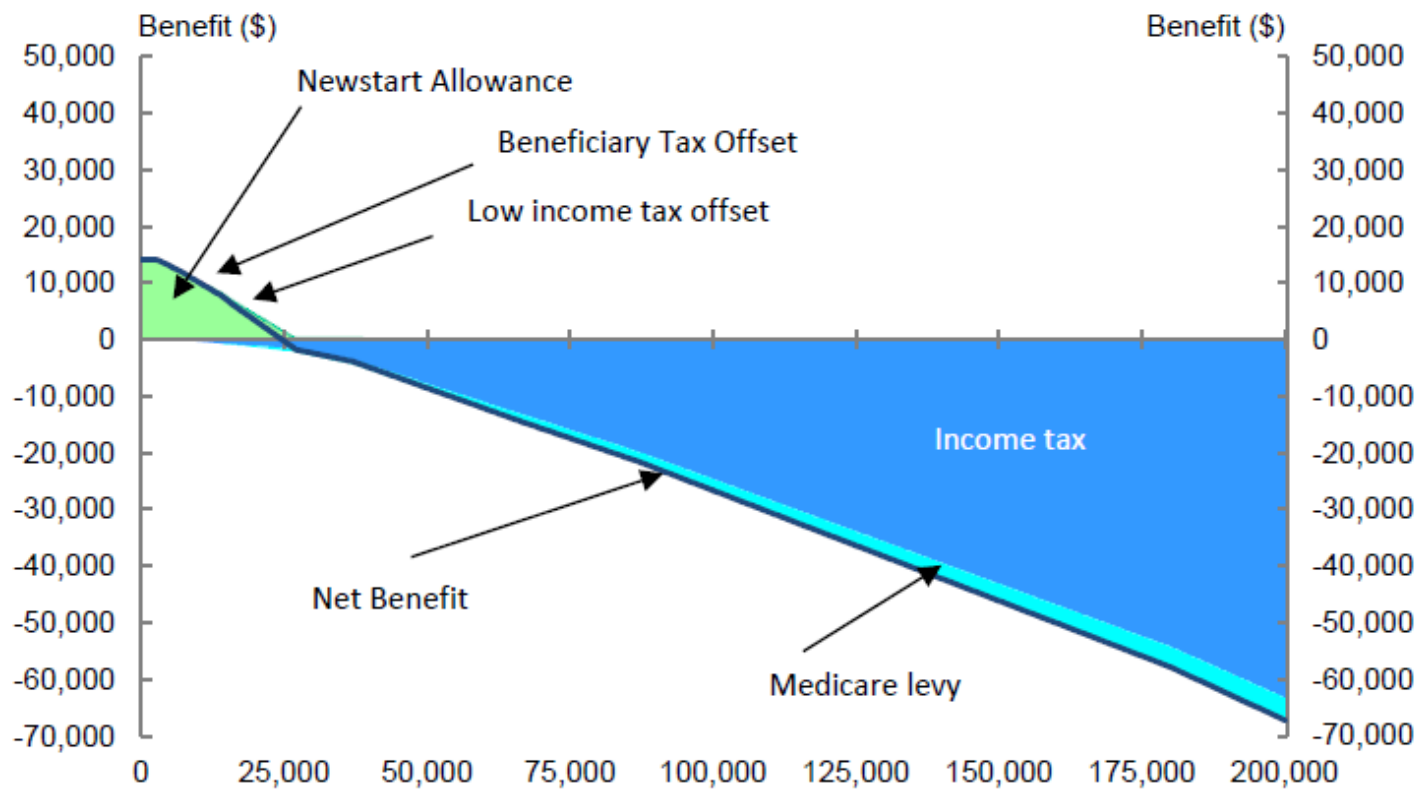
What CAPITA doesn't model

- Childcare (cameo only)
- HECS-HELP (cameo only)
- Indirect taxes
- Social transfers in kind



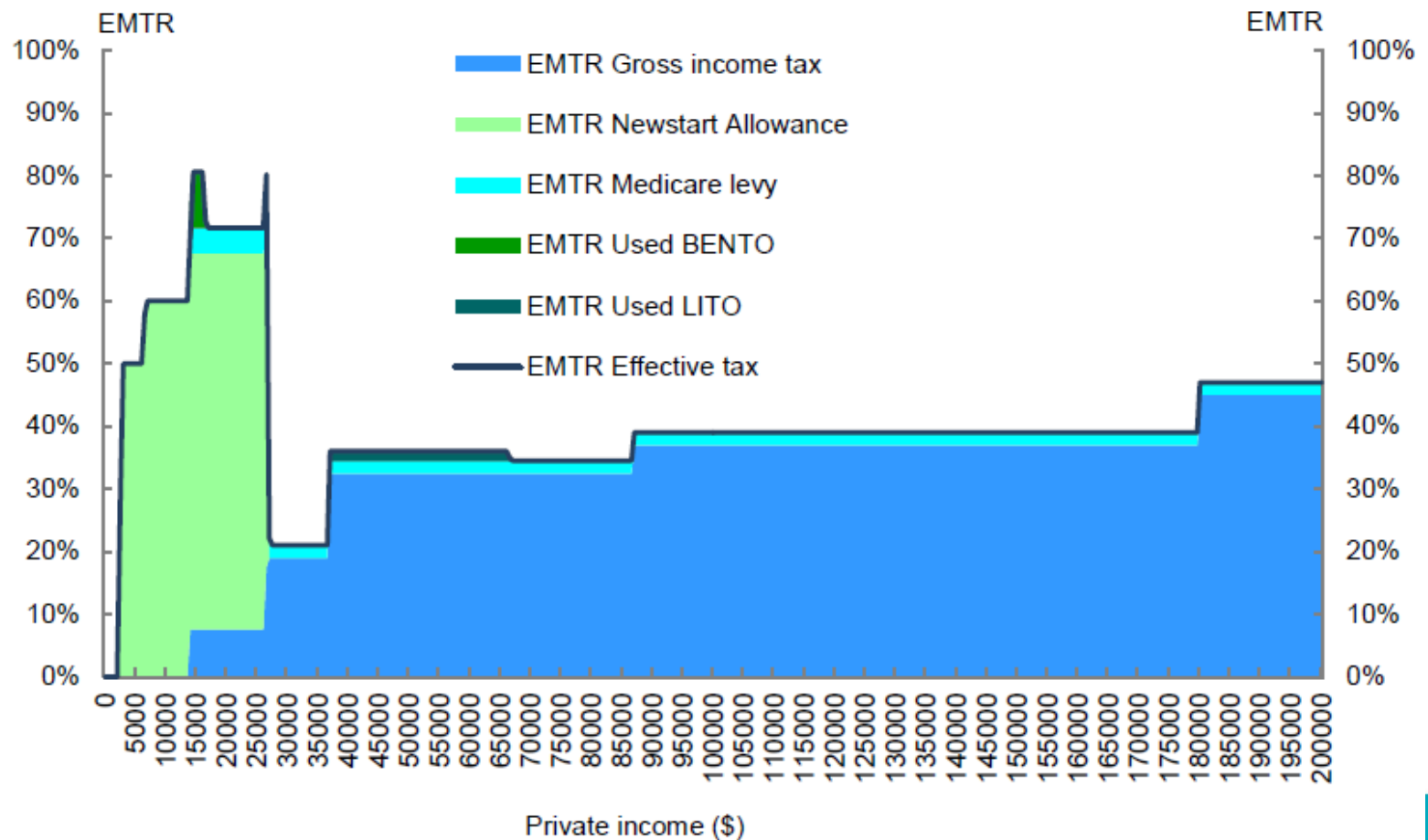
Cameo analysis

- Benefits received and tax paid for single individual, no children in 2017-18



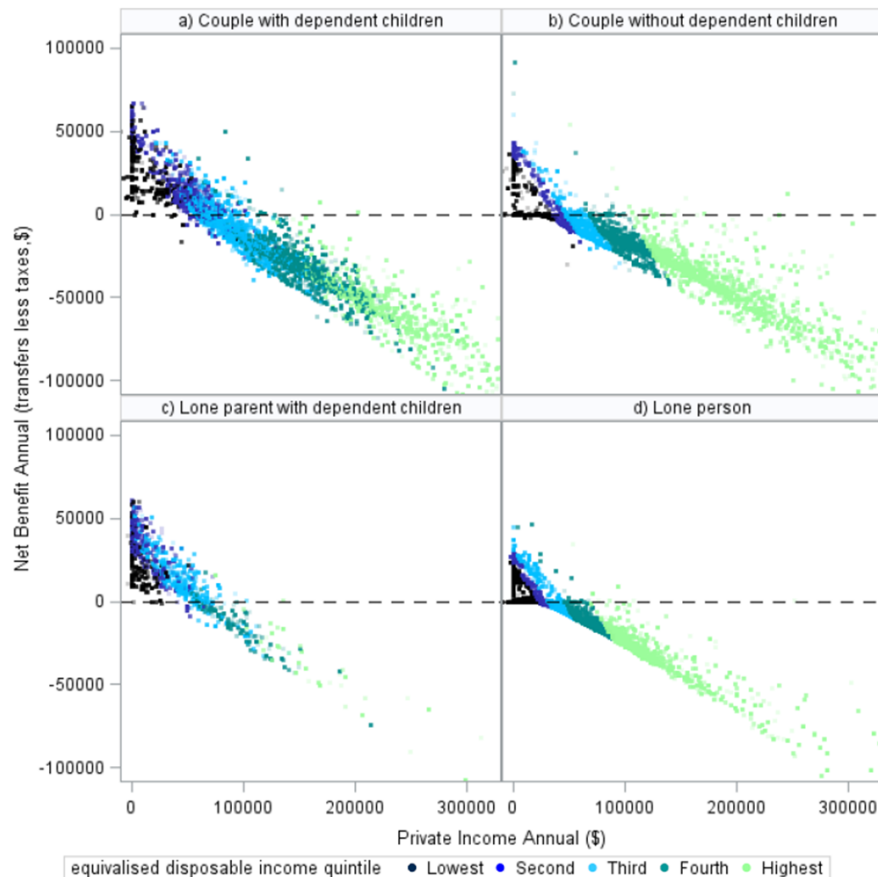
EMTR analysis

- Breakdown of EMTR for single individual, no children in 2017-18



Distributional analysis

- Distribution of taxes paid and benefits received by income and family type, 2017-18



Public release

- 15 September 2017
- The model
 - SAS code, parameters, documentation
 - <https://github.com/CAPITAmodel>
 - <https://github.com/CAPITAmodel/CAPITA/tree/master/Documentation>
- Treasury Research Institute paper
 - <https://treasury.gov.au/publication/capita-treasurys-microsimulation-model-of-personal-income-tax-and-transfers/>

Questions?

