

*The effects of changes in
family composition and
employment patterns on the
distribution of income in
Australia*

David Johnson and Roger Wilkins



Objectives

- Measure trends in distribution
- Consider possible causes
 - ◆ Government transfers & taxes
 - ◆ Income unit composition
 - ◆ Labour force participation
 - ◆ Wage distribution
 - ◆ Other demographic factors
 - (education, country of birth, age)



Data & definitions

- Ways of describing distributions
 - ◆ Graph
 - ☞ proportions of units in each income range
 - ◆ Summary index –the Gini
 - ☞ Maximum inequality when Gini equals one
 - ☞ No inequality when Gini equals zero
- The data
 - ◆ Unit records from 7 income surveys
 - ◆ Population: people over 15
 - ◆ Observational unit: the individual
 - ◆ Each individual has the income of their income unit
 - ◆ Truncate to incomes in 3–97 percentile range
 - ◆ All incomes are adjusted for inflation

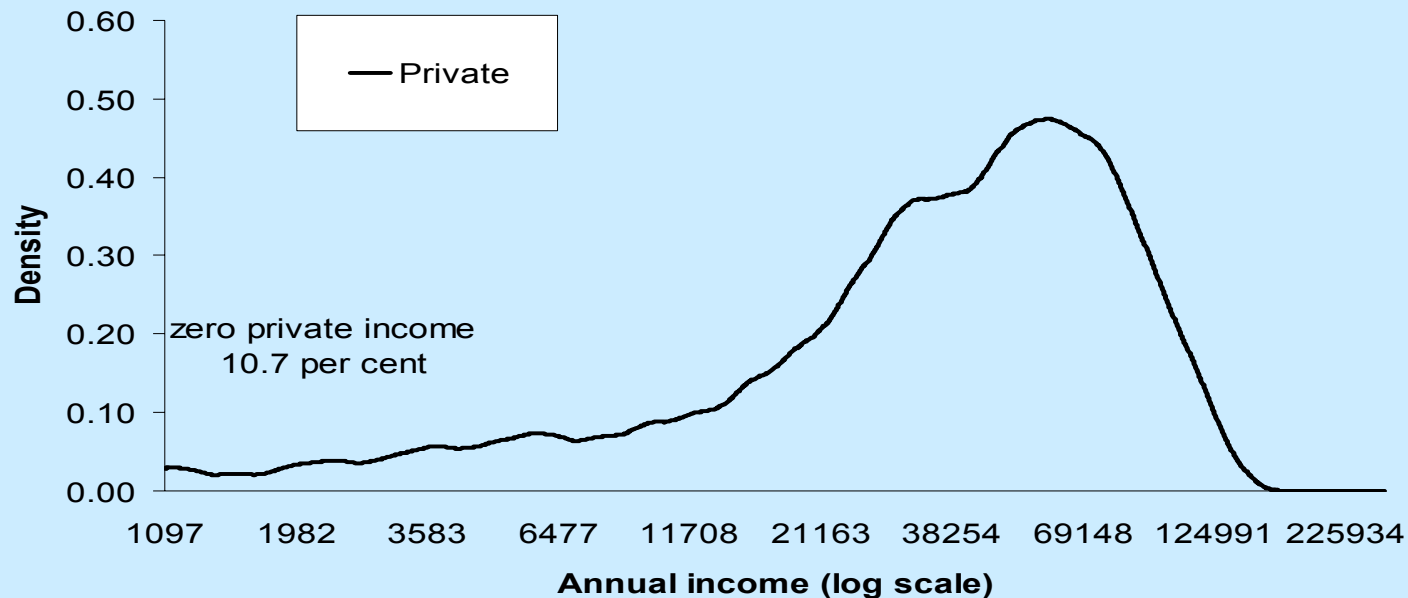


Concepts of income

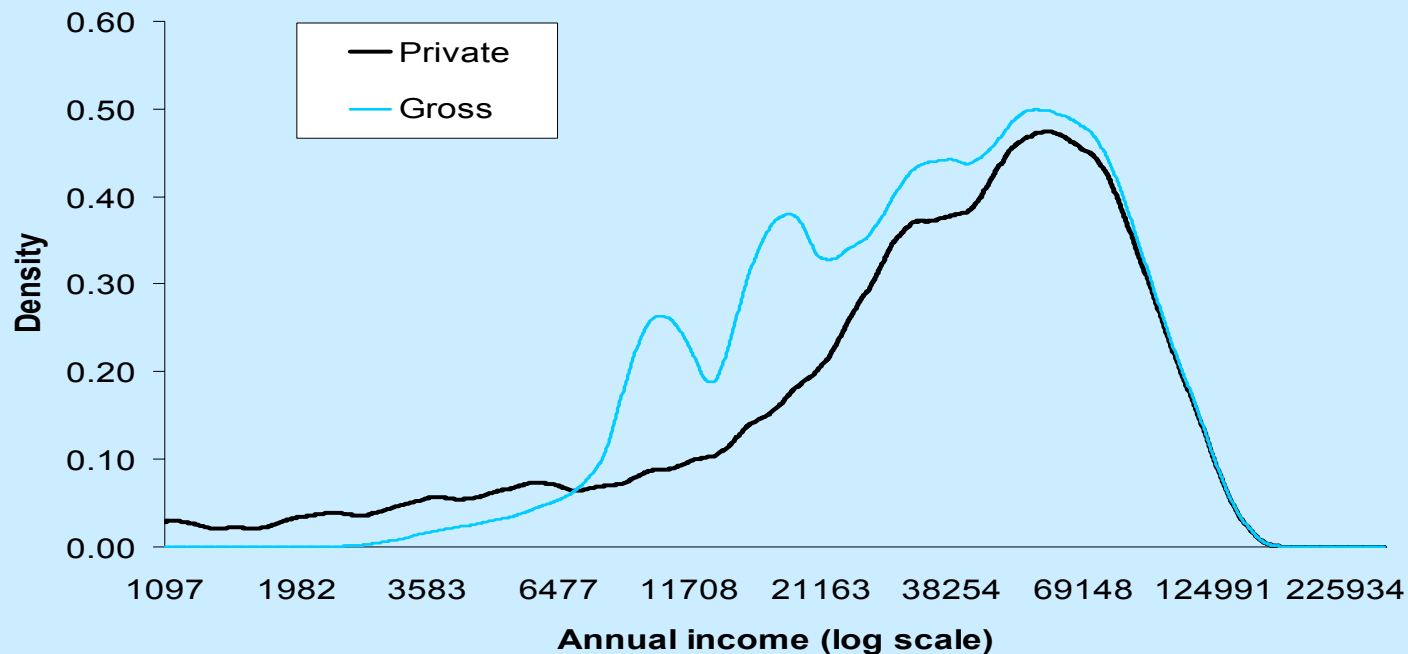
- Private income
 - ◆ Wages and salaries
 - ◆ Profits from business, shares
 - ◆ Rent , interest etc
- Gross income
 - ◆ Private income *plus*
 - ◆ Transfer payments
 - ↳ (Pensions, benefits and allowances)
- Disposable income
 - ◆ Gross income *less*
 - ◆ Income tax



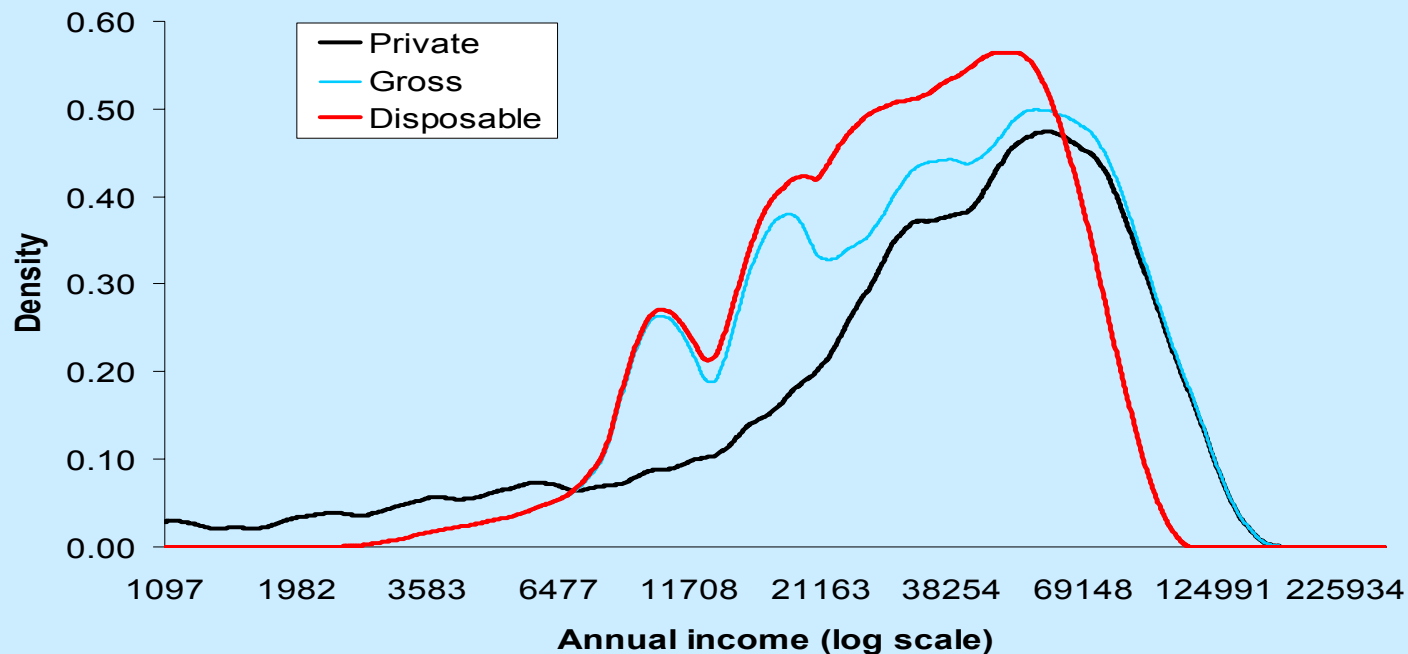
The distribution of private, gross and disposable income (1996-7)



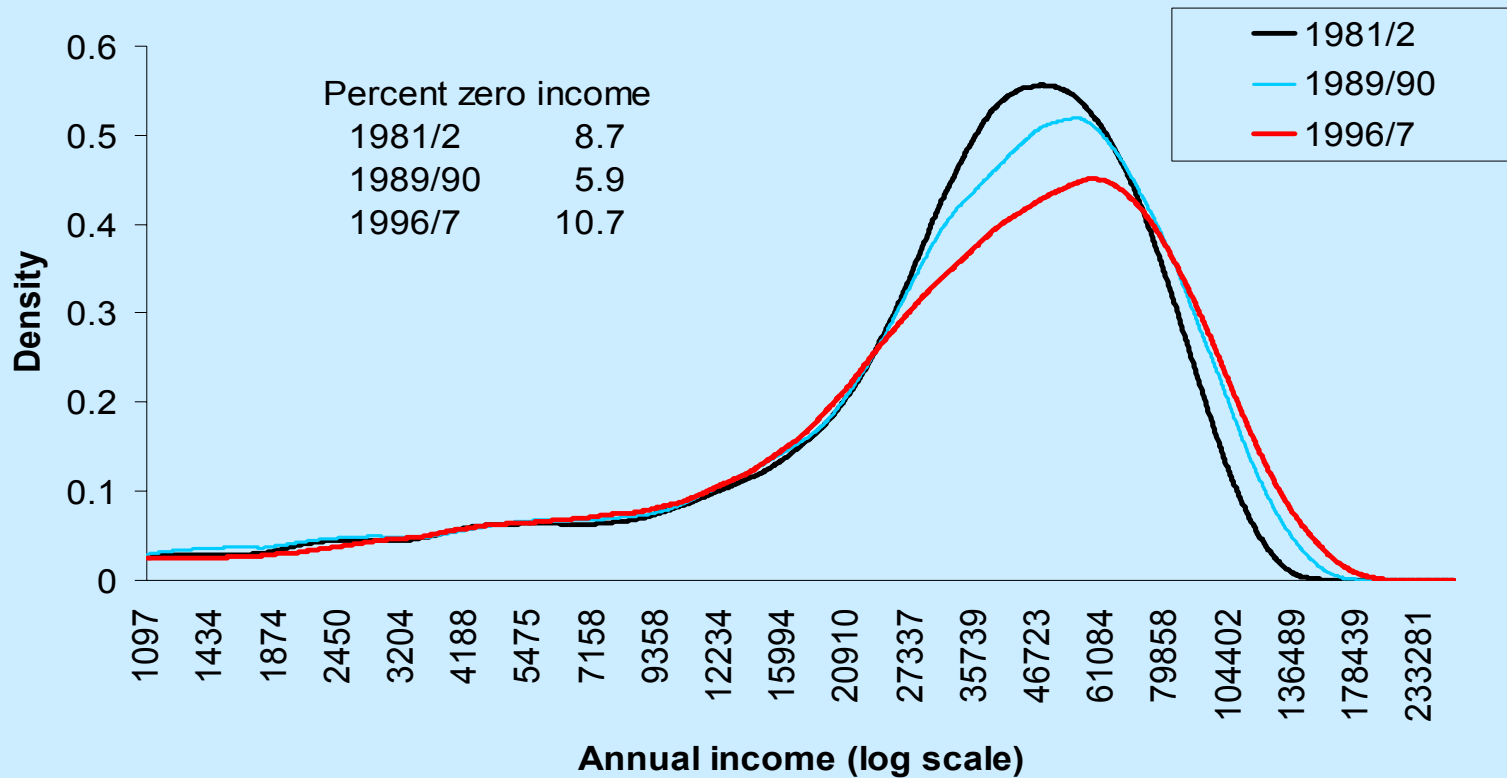
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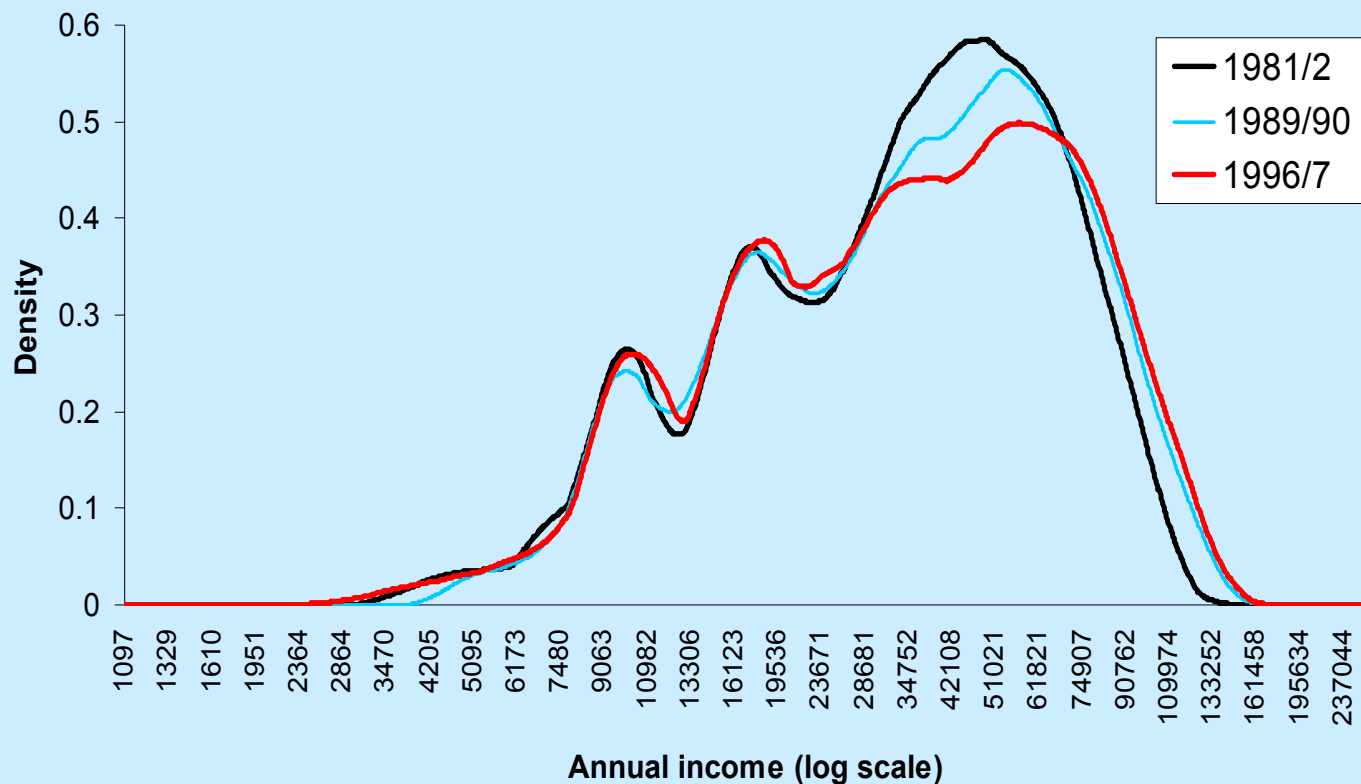
The distribution of private, gross and disposable income (1996-7)



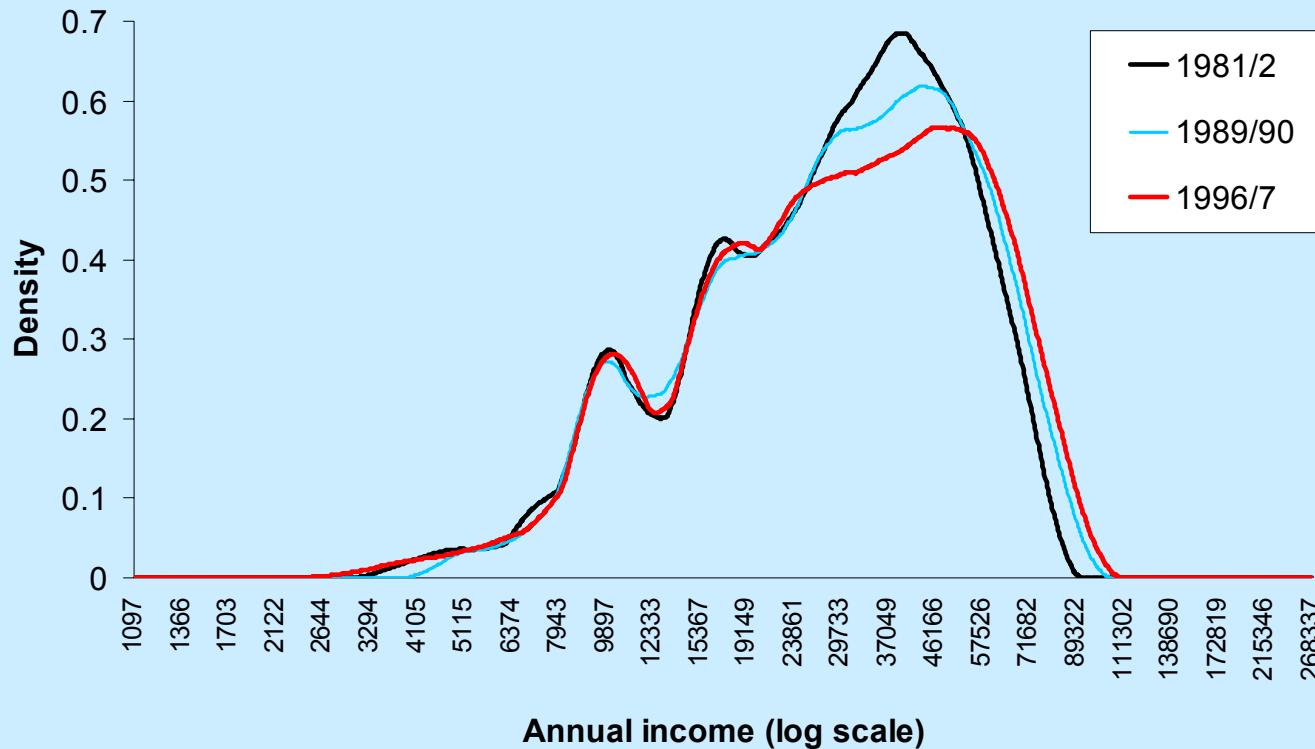
The distribution of private income



The distribution of gross income



The distribution of disposable income



Trends in Gini indexes of inequality

	1981-2	1989-90	1996-7
Private income	0.427	0.439	0.474
Disposable income	0.306	0.316	0.329
Effect of taxes & transfers	0.121	0.123	0.145

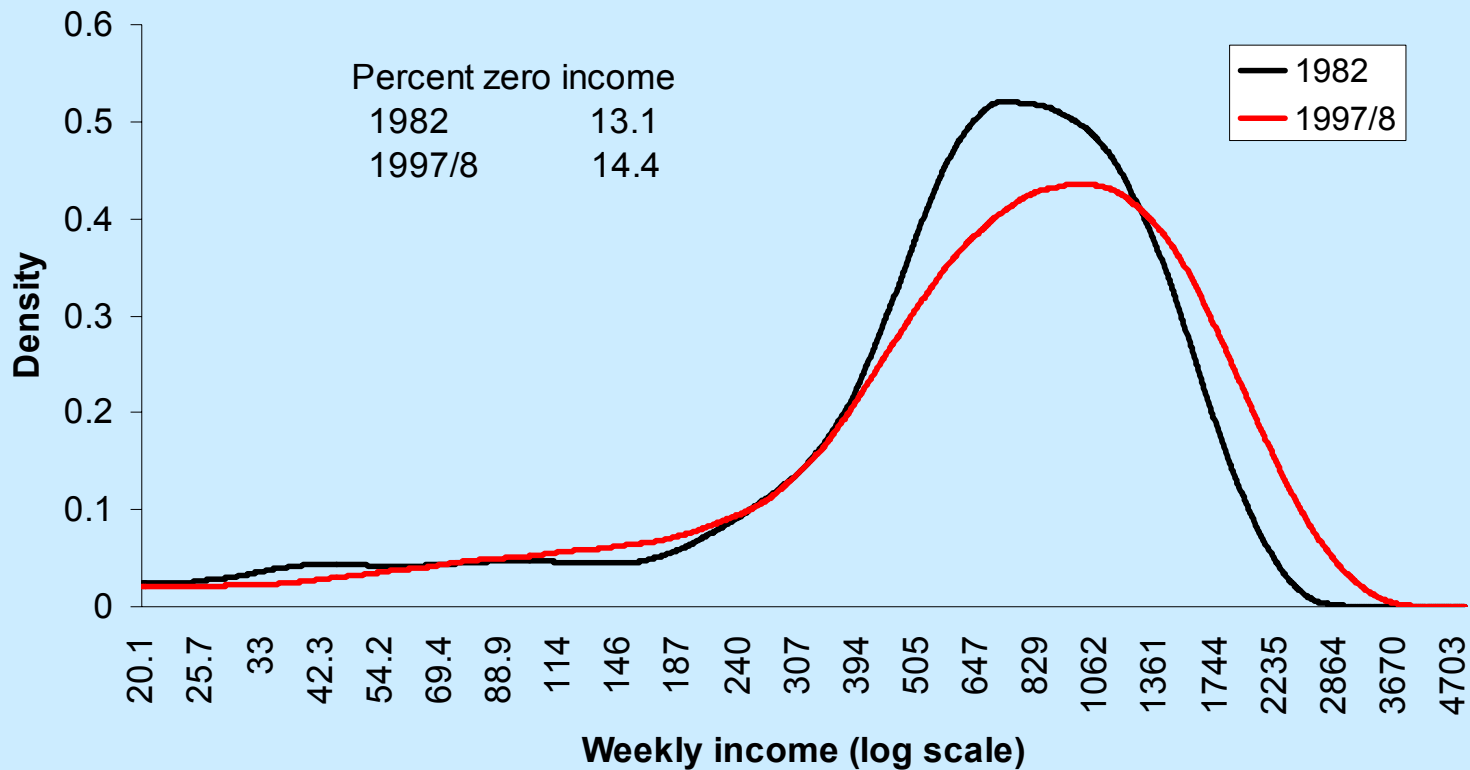


Summary of aggregate trends

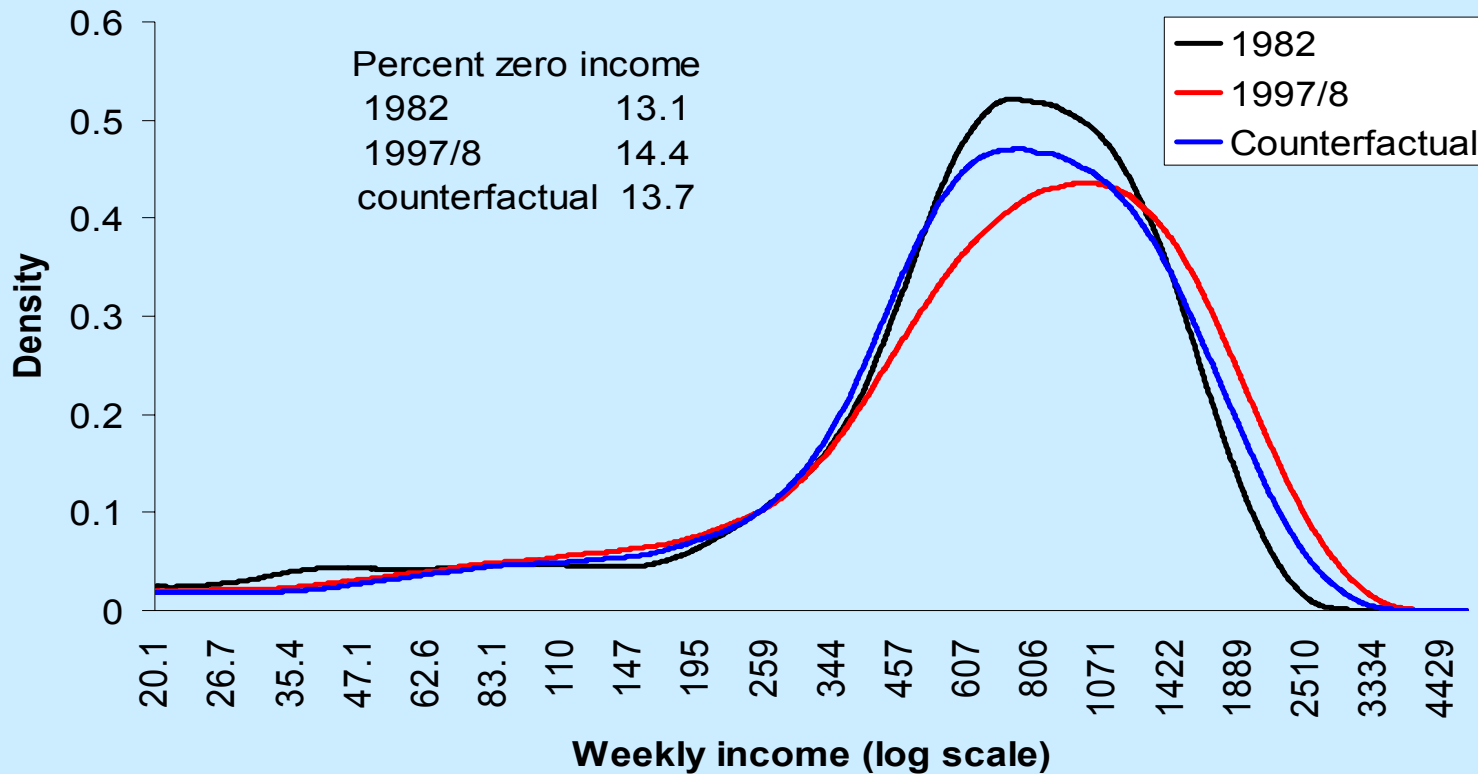
- Private income became more unequal
 - ◆ particularly in the late 80s
- Transfers and taxes mitigated this trend
- Results are robust to different assumptions about:
 - ◆ Weekly or annual income
 - ◆ Equivalising
 - ◆ Summary measures of inequality



Decomposing change- private weekly income



Decomposing change- private weekly income



Components of change 1981-2 to 1996-7; private weekly income

	Actual change	Effect of changes in			
		All	Labour force status	Income unit type	Oth. Demo. Factors
Mean, \$	74	39	-4	-11	54
Gini	0.034	0.018	0.019	0.005	-0.007



Inequality of private income, 1981-2 to 1996-7

- Changes to work patterns explain about half the increase in inequality
- Together, changes in Income unit composition and Other demographic effects (education, age & place of birth) cancel out
- The remaining half is due to changes in the incomes attached to the observed characteristics
 - ◆ We suspect this largely reflects change to wage rates



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