



Individuals' Responsiveness to Marginal Tax Rates: Evidence from Bunching in the Australian Personal Income Tax

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Key findings

Using the universe of Australian taxpayers from 2000 to 2018 we find:

- Sharp bunching at all tax threshold points in the personal income tax system.
- Substantial heterogeneity in the estimated elasticities of taxable income (ETI) across income levels, ranging from 0.03 to 0.16.
- ETI of zero for wage earners, and 0.23 for self-employed individuals, suggesting income shifting and tax sheltering play a major role in responses to the tax system.
- Higher elasticities are found for married women, women with children, younger individuals, and those with greater opportunity to shift income within the household.
- Our findings suggest that individuals' responsiveness is a function of marginal tax rates, the structure of the tax system and tax system administration.

What we knew

- Taxes on personal income generate behavioural responses as individuals attempt to maximize their well-being. These responses include minimizing tax burden.
- The Elasticity of Taxable Income (ETI) measures individuals' behavioral responses to tax rates. Although the ETI is endogenous to the tax system, it is a crucial parameter to inform the optimal system design.
- Bunching methods developed in the early 2010's, combined with administrative data, can credibly estimate the ETI.
- Previously, bunching analysis was mostly limited to the United States, Denmark and Sweden, due to data availability.
- In Australia, there were no attempts at estimating the ETI using bunching. Limited analyses examined the HECS system, and the Medicare Levy Surcharge.

What we do

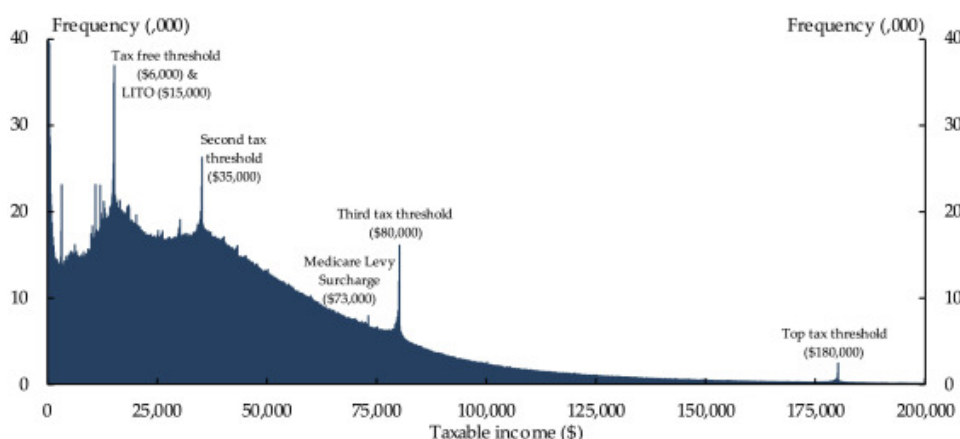
- We use the universe of administrative tax data from the Australian Taxation Office.
- The data include all individuals who lodged a tax return from 2000 to 2018, and includes some demographics: gender, age, marital status.
- We limit the analysis to individuals aged 20 to 65, living in Australia.
- We use bunching methods to estimate the ETI for all tax thresholds, at all years in our data, and for different groups of demographic and economic characteristics.

What we know now

A subset of our results are summarised in Figures 2 and 3.

- Bunching manifest at all tax thresholds—see Figure 1.
- ETIs (and bunching) for wage and salary earners are substantially lower than for self employed individuals across all years and at all tax thresholds.

Figure 1: Distribution of taxable income 2010



- For self employed individuals, ETIs for women are larger than for men during typical child-bearing years, suggesting the presence of income sheltering behaviour.
- Married women have larger ETIs than single men. These two groups are often found to be the most responsive to marginal tax rates.
- The ETI of women with children increases with the number of children.
- The increased use of data matching and pre-filling by tax authorities preceded a decline in the ETIs, which suggests that tax administration and compliance practices affect the ETI.
- Those results can be explained by features of the Australian tax system: deductions are widely available and have lower documentation requirements; and there is significant scope to move income across years and to other individuals.

What this means for policy

- Our findings emphasize the need to think about the structure of the tax system as a whole when undertaking tax reform.
- Additionally, they underscore the importance of administrative features of the tax system when considering potential behavioural responses.
- Research that produces country-specific estimates is necessary. Applying elasticity estimates from one country to another country's system design is likely to produce external validity problems.

Where to now?

- Further research is needed to examine tax sheltering behaviour and the opportunities for avoiding taxes that are present in the Australian tax system.
- Of particular interest is the interaction of taxable income and tax sheltering between family members.

More information

- Get the full open-access paper at: <https://doi.org/10.1016/j.labeco.2023.102461>.
- We would welcome the opportunity to present our research to your team and to discuss potential joint research projects on related or similar topics.
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Figure 2: Estimated ETI by employment type, 2000-2018.

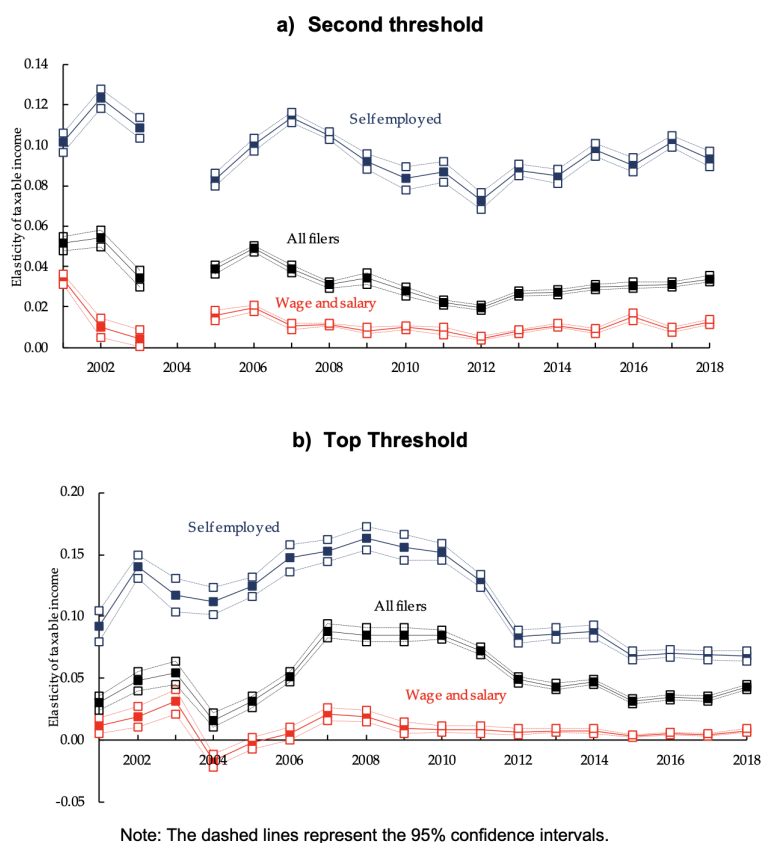


Figure 3: Estimated ETI at the second tax threshold, select age groups, 2000-2018.

