

Bunching

Economía Pública: Impuestos

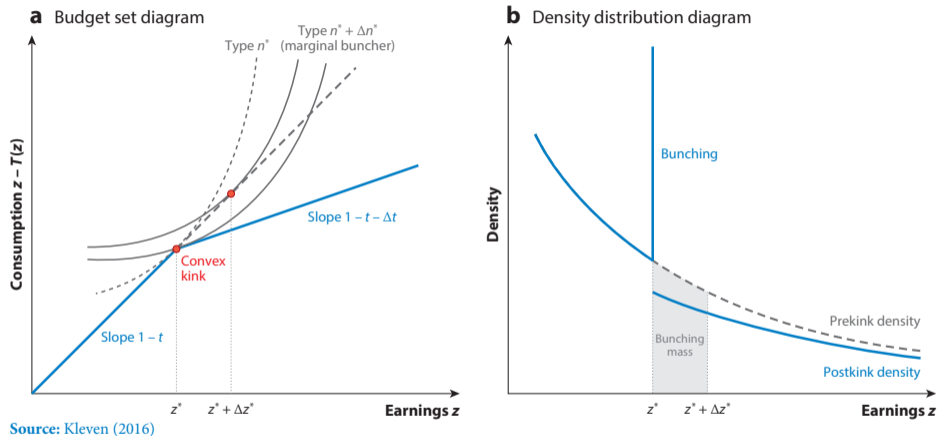
Clase 4

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Bunching approach

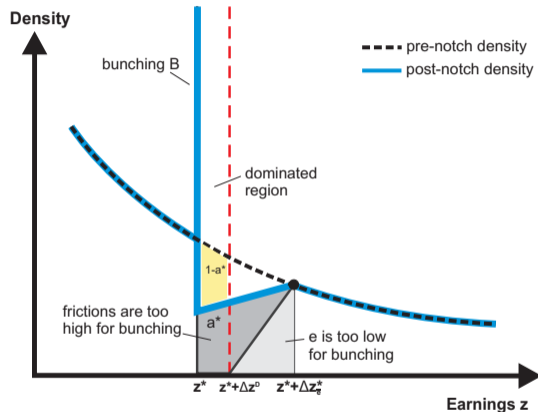
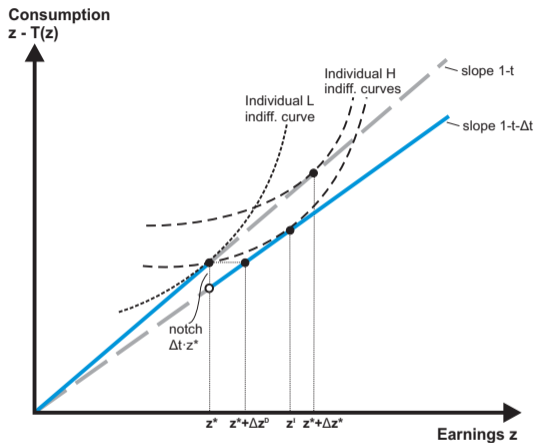
- ▶ A useful tool to provide compelling nonparametric evidence of responses to features of the tax-benefit system (non-linear budget sets). It exploits discontinuities in:
 - 1) The *slope* of a budget set (**kinks**)
 - 2) The *level* of a budget set (**notches**)
- ▶ Bunching theory developed by two seminal papers:
 - ★ Saez (2010) shows that excess bunching around **kinks** can be used to identify the compensated elasticity of labor supply/earnings $e = \frac{\Delta z^*/z^*}{\Delta t/(1-t)}$ (one moment)
 - ★ Kleven & Waseem (2013) develop a method to identify the amount of frictions and structural elasticities using **notches** (two moments)
- ▶ Developed in the context of taxation (discontinuities in MTR or ATR); now common in many non-tax areas (social security/insurance, education, regulation, etc.)
 - Estimating bunching precisely requires large data with no measurement error

Bunching at Kinks



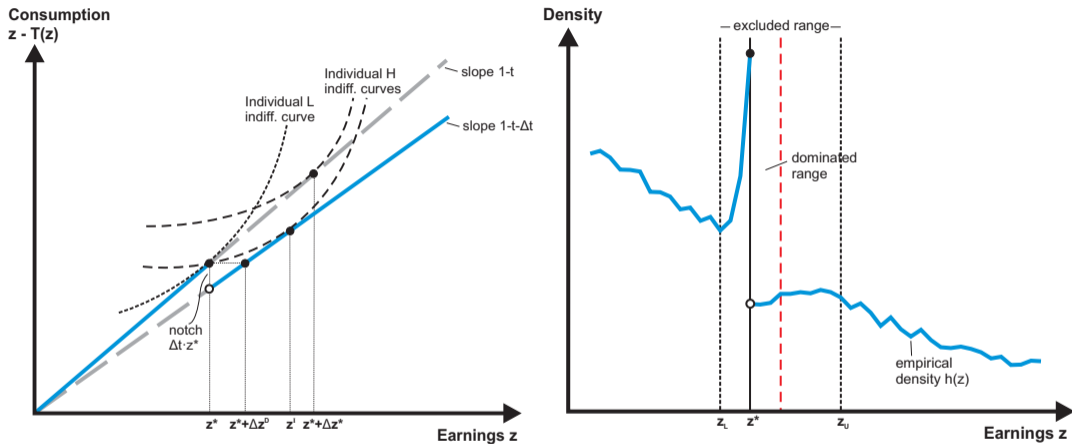
Key insight of Saez'10: the (compensated) earnings elasticity can be inferred from the response by the marginal buncher, Δz^* , which is proportional to the amount of excess bunching: $\Delta z^* = B/h_0(z^*)$

Bunching at Notches



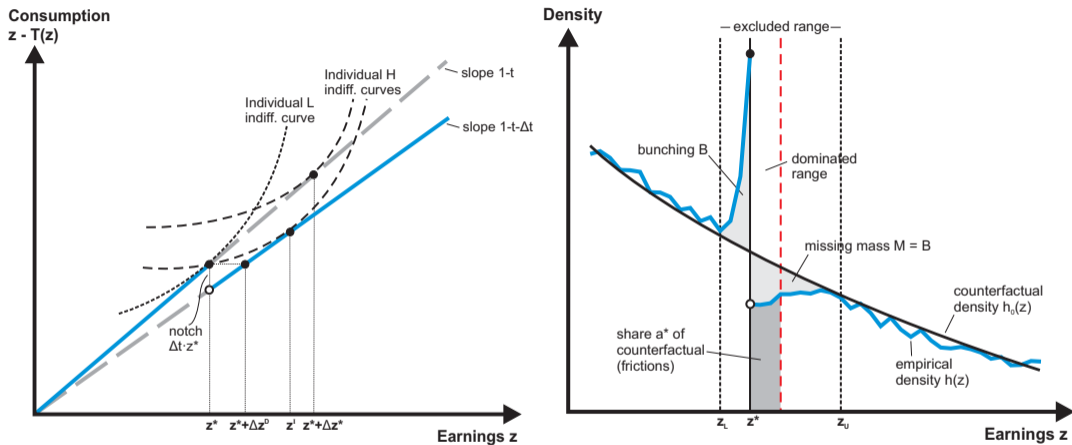
Key insight of Kleven-Waseem'13: use empirical density in the theoretical gap area to measure the fraction of unresponsive individuals a^* . Then $\Delta z^* = B/(1 - a^*)/h_0(z^*)$. Can back up the frictionless elasticity

Bunching at Notches



Key insight of Kleven-Waseem'13: use empirical density in the theoretical gap area to measure the fraction of unresponsive individuals a^* . Then $\Delta z^* = B / (1 - a^*) / h_0(z^*)$. Can back up the frictionless elasticity

Bunching at Notches

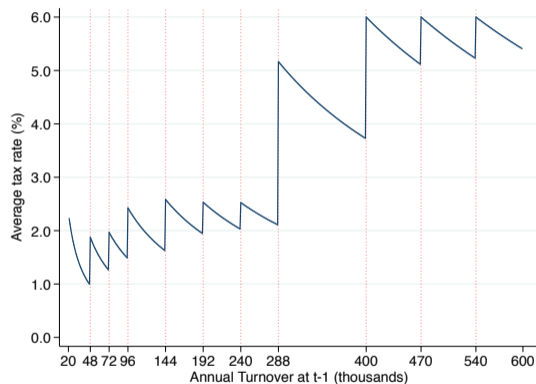


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Example: Monotributo

- ▶ Argentina's simplified regime for small taxpayers (*Monotributo*)
- ▶ In *lieu* of VAT, income tax, and SSC
- ▶ Schedule: monthly flat fee that increases discretely with income
 - (-) Distortive: Incentives to under-report income and/or work less
 - (+) Simple: Conceived to induce formalization of the self-employed
- ▶ Allows to study behavioral responses of self-employed

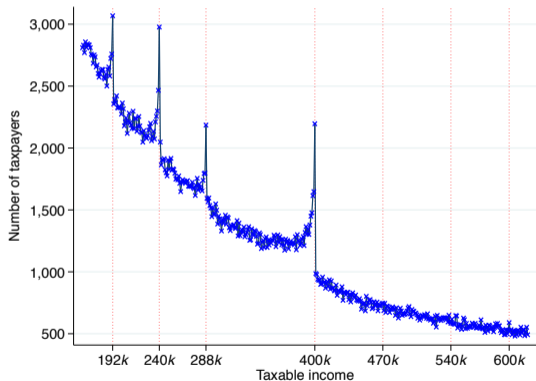
ATRs: schedule is plagued with notches



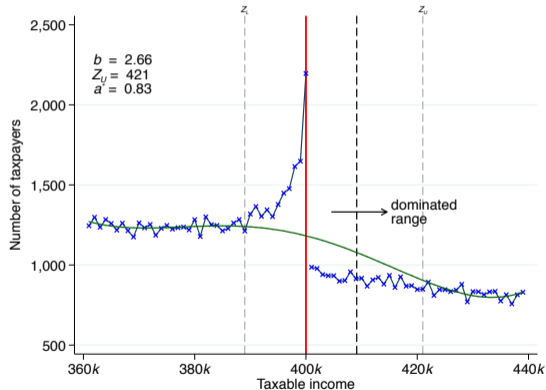
Source: Garriga, Puig, Tortarolo (2020)

Bunching in the last 7 notches and VAT registration threshold

Last 7 notches



Zoom in: 400k notch



References

Kleven, H. J., (2016). [Bunching](#), *Annual Review of Economics*, 8:1, 435-464

Bachas, P., F. Kondylis, J. Loeser (2021). [We got bunching, now what?](#), Development Impact, World Bank