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Think development - Think WIDER conference

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# Using Tax Administrative Data

## The Statistical potential



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# Presentation outline

- Tax data: The South African experience
  - The data we have
  - Why tax data is important
- Policy relevant research examples
  - [Employment Tax Incentive](#)
  - [Small firms response to tax schedule discontinuities](#)
  - [How large is the wage penalty in the labour broker sector?](#)

# Introduction

- South African Experience in the use of Tax Administrative Data
- Initiated in 2014
- 20+ research papers produced
- Matched Employer-Employee panel created

# What is tax admin data?

- Form Submissions to SARS
  - Company Income Tax
  - Value Added Tax
  - Customs tax
  - PAYE Tax (individual tax or IRP5)

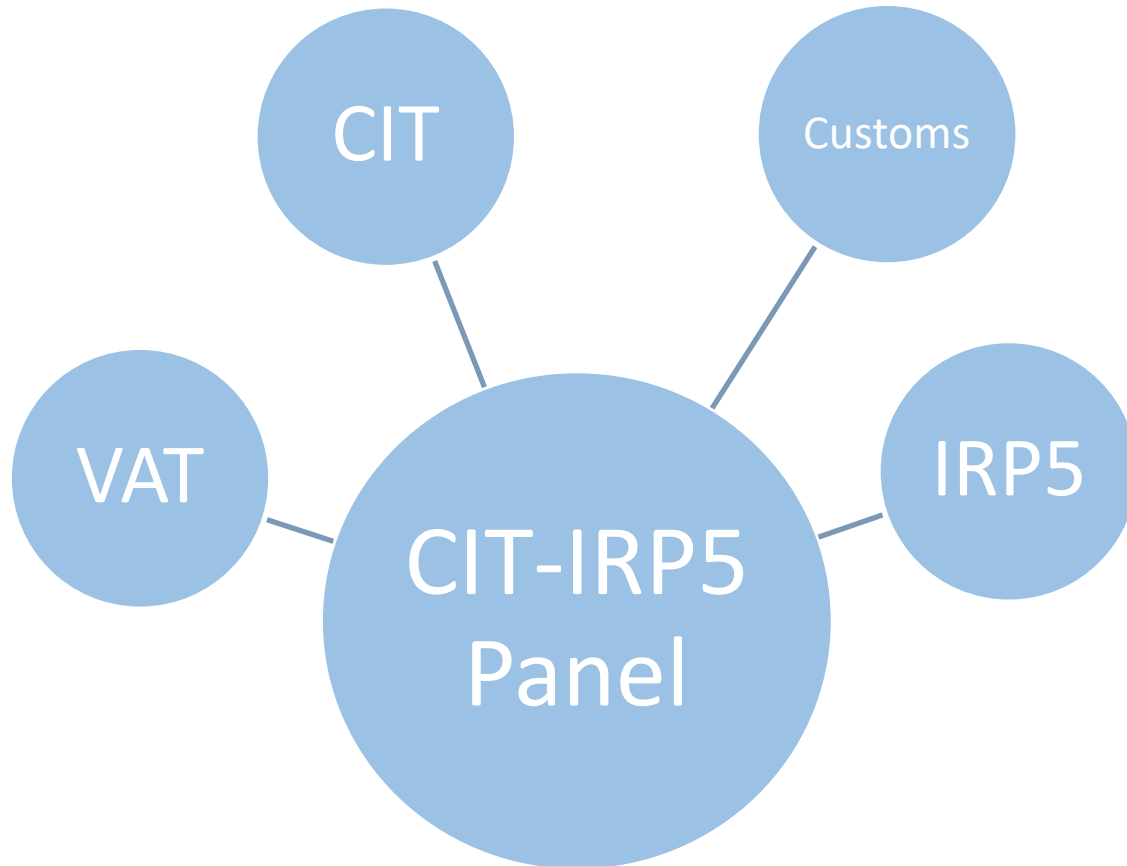
# Advantages of tax data

- Much larger sample sizes/full population
- Longitudinal in nature
- More dependable, no attrition or non-response
- Lower costs in gathering data

# Disadvantages of tax data

- Not all topics are available in the data. Collected for non-statistical purposes
- Data quality
  - Incomplete
  - Out of date (e.g. address data)
  - Duplicates (tax form revisions)

# Matched Employer – Employee panel



- New extractions from SARS
- Change forms or additional fields
- Improve accuracy
- Documentation/Metadata
- Researcher reported issues

# Employment Panel

- Anonymised individual-level panel
- Employer issued tax certificates and Income Tax returns combined
- Includes:
  - Formal employment period
  - Type of income per person
  - Taxable income and tax liability



# Why is Tax Data important?

- Needed for production of national statistics
- Evaluate public policy
- Evidence based policy making
  - Some examples

# Employment Tax Incentive

by Amina Ebrahim

# Employment Tax Incentive

- Employer side, low wage subsidy for youth earning below R6,000
- Introduced 1 January 2014 for 3 years, extended for another 2 years ending in February 2019.
- Challenge in evaluating the policy:
  - Individuals are not aware that companies are claiming the subsidy
  - Survey would not provide necessary data
- Has the policy stimulated job creation?
  - Firm level data required
  - Subsidy claimed as a tax credit

# Data used

## Individual income tax (IRP5)

- Anonymised
- Job level tax data
- Unaudited

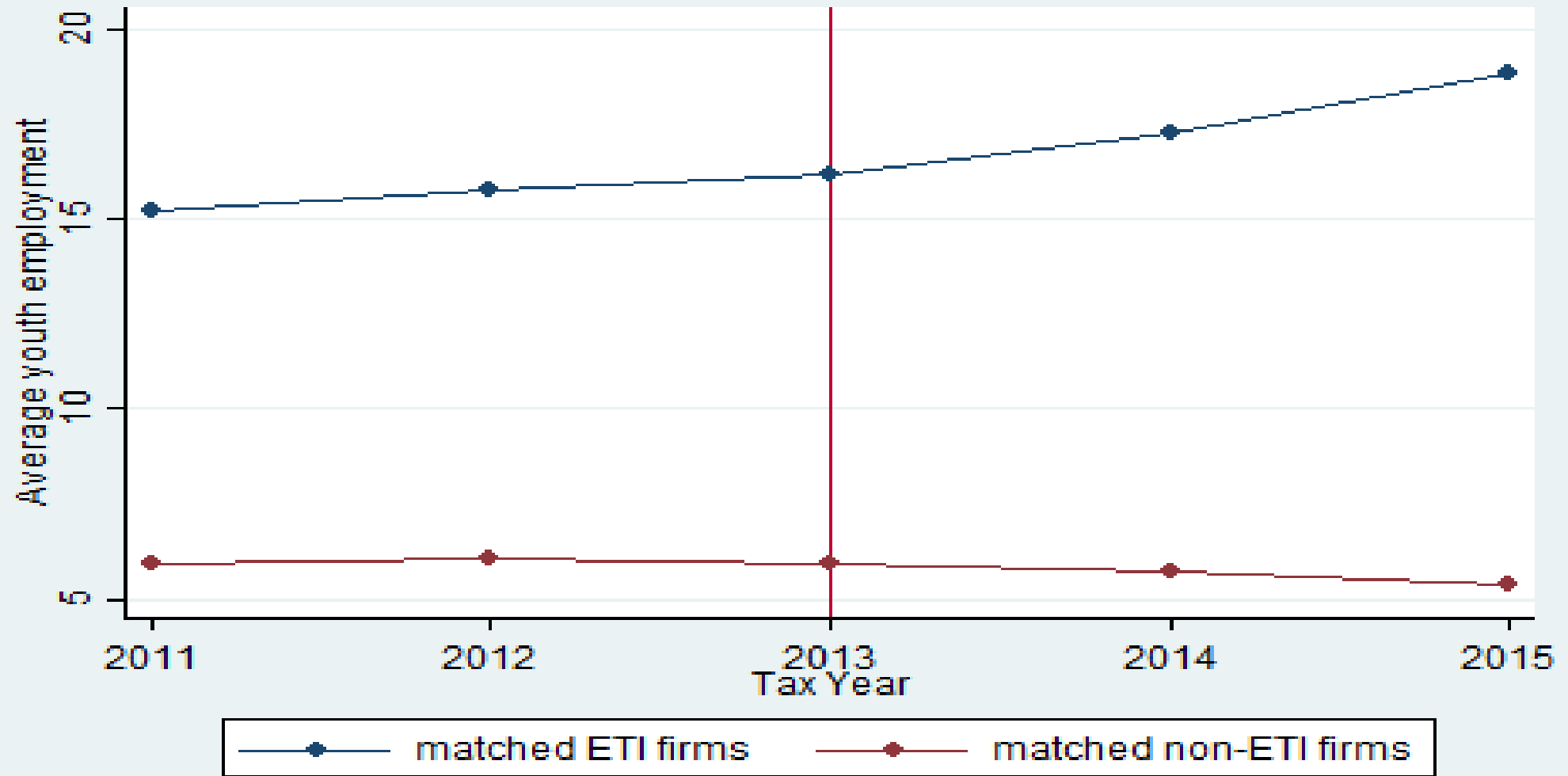
## Company Income Tax (CIT)

- Firm level data

## Time Period

- Tax Year
- 2011 – 2015  
1 Mar '10 – 28 Feb '15

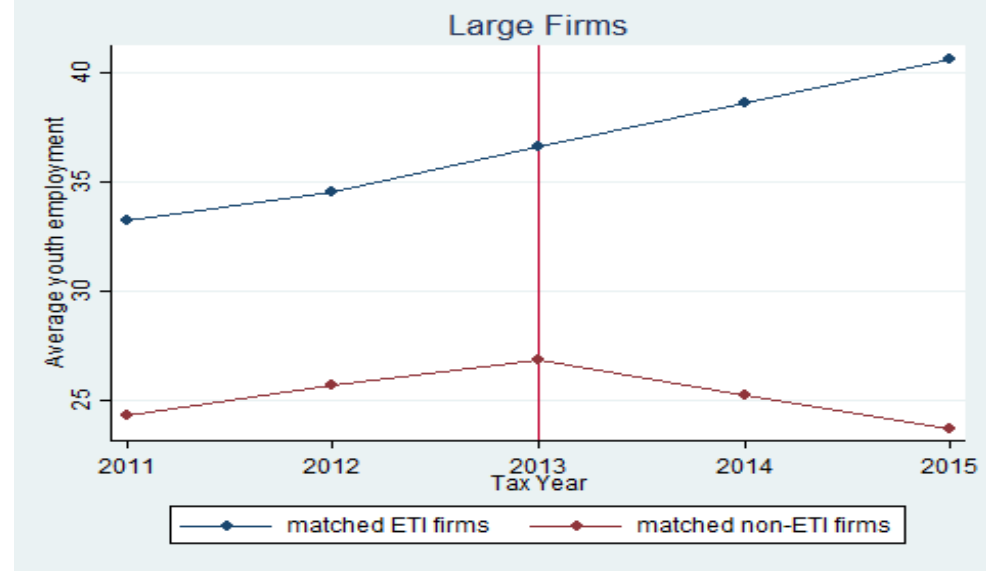
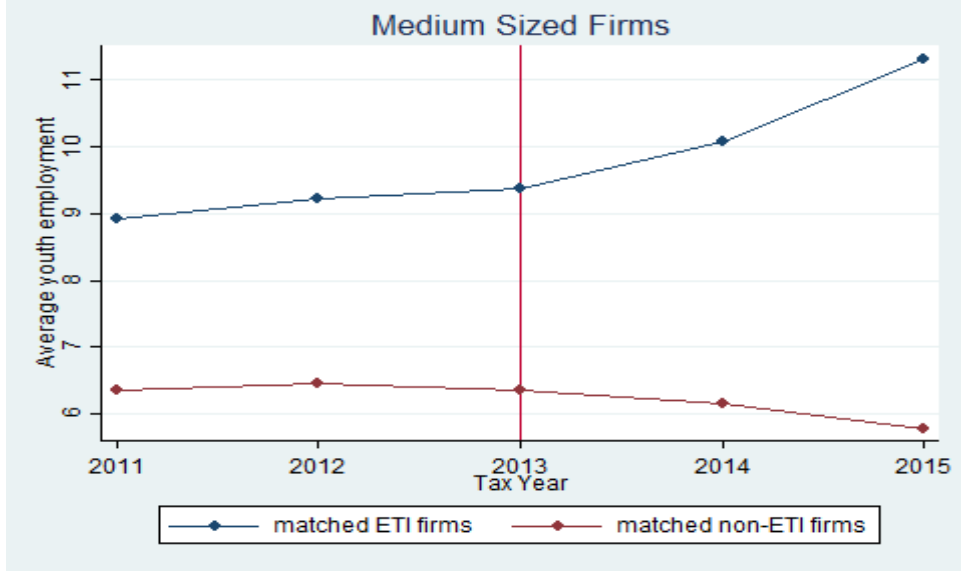
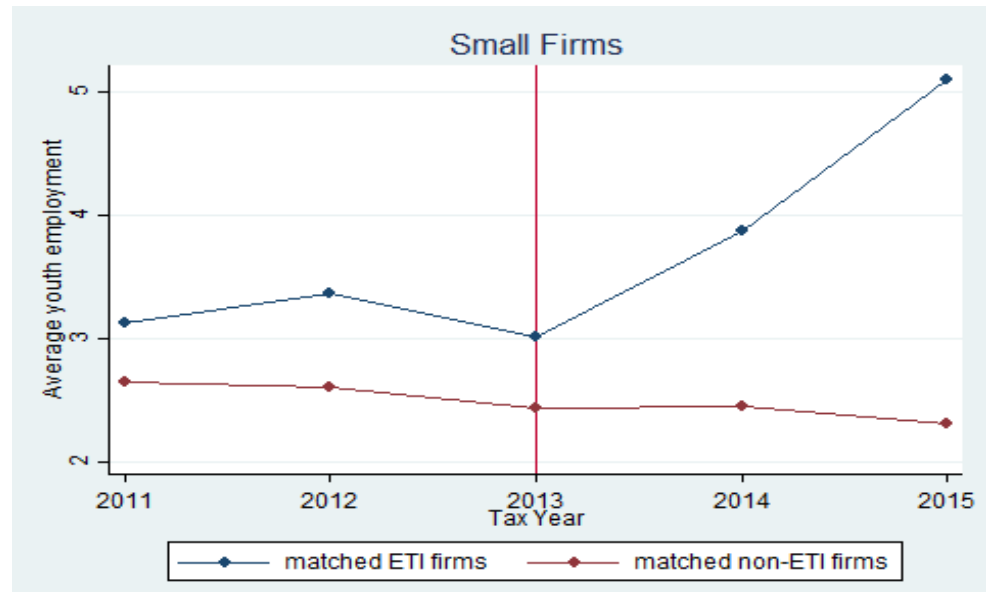
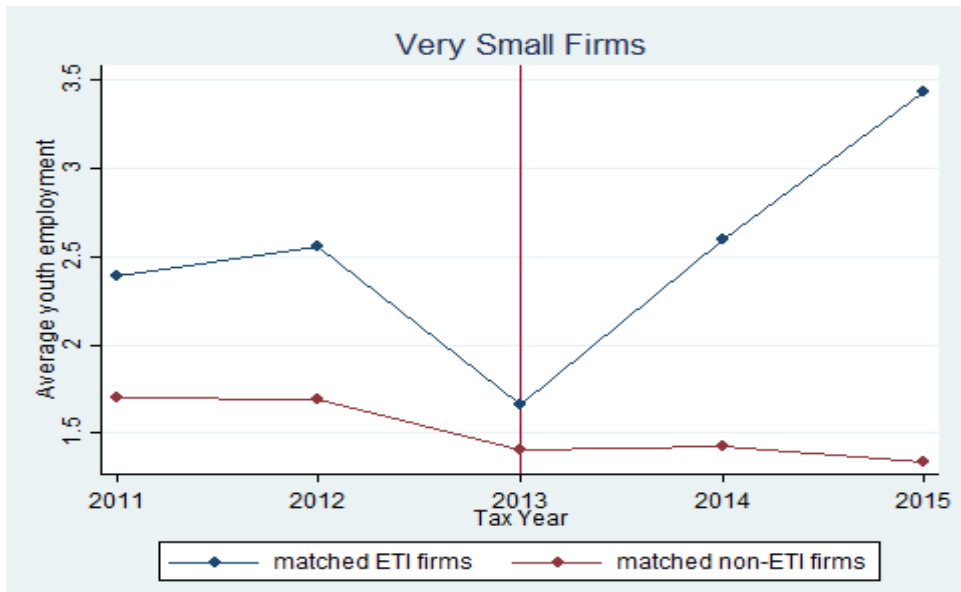
## Kernel Match

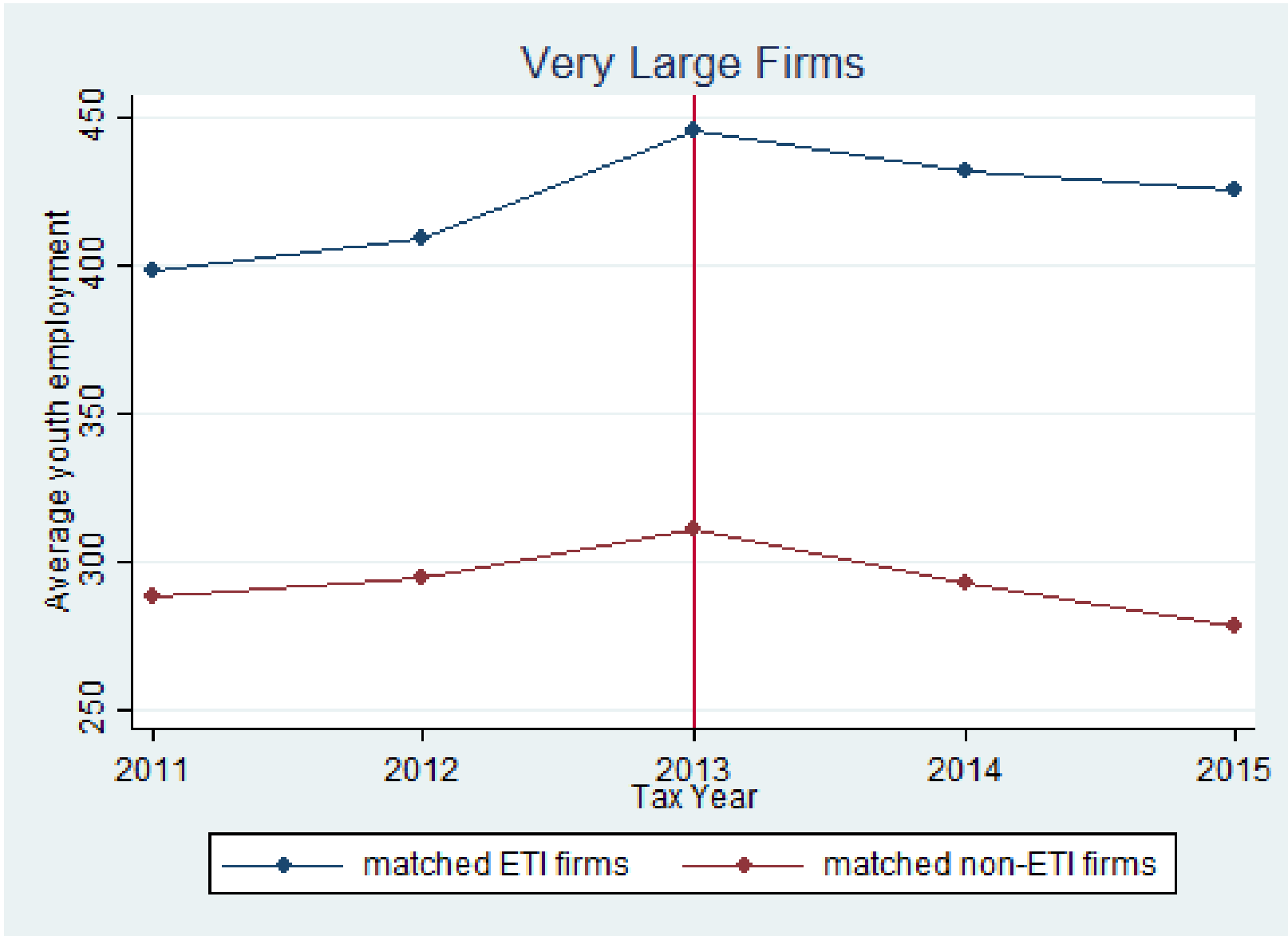


# Results from the cDiD

	Tax year 2015
Youth employment	3.902*** (0.204)
Non-youth employment	4.780*** (0.380)
Total employment	8.704*** (0.594)

Standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1







# Matching within firm size: cDiD results

Firm size	Youth employment FY 2015
0 – 5 employees	1.766*** (0.067)
6 – 10 employees	2.226*** (0.183)
11-50 employees	2.511*** (0.125)
51 – 200 employees	7.428*** (1.034)
201+ employees	19.71 (56.7)

Standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

# Evidence based policy making

This study and two others formed part of the evaluation of the ETI policy in 2016 and again in 2018.

Results have been made available to government for policy improvements.

# How do small firms respond to tax schedule discontinuities

By Wian Boonzaaier, Jarkko Harju,  
Tuomas Matikka, and Jukka Pirttilä

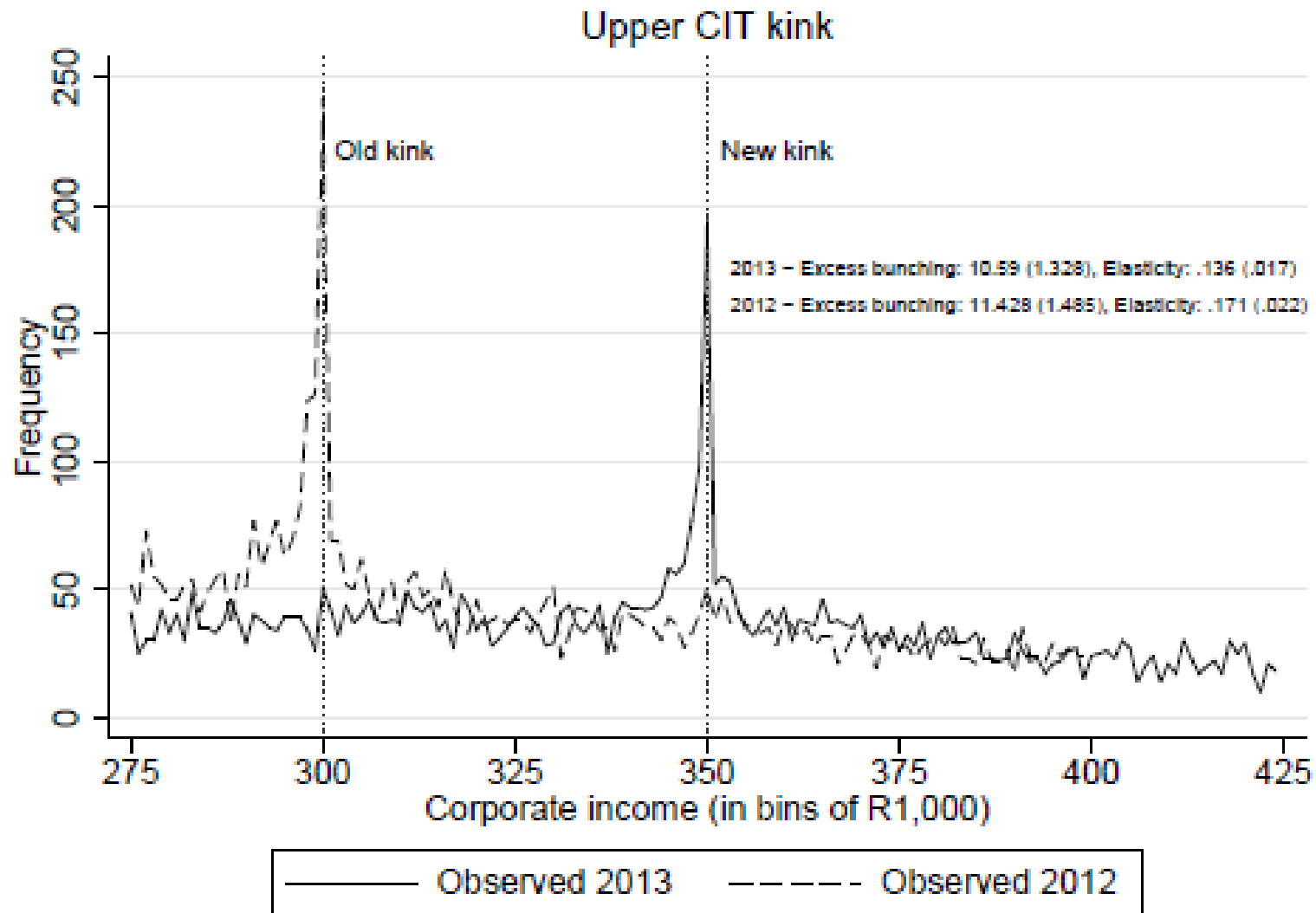
# Intro

- The South African government implemented a graduated, progressive corporate income tax rate schedule for small businesses in order to stimulate economic activity.
- Resident companies are subject to a 28% tax rate

# Findings

Assessment Period	Taxable corporate income (ZAR)	Marginal tax rate
01/04/2011 - 31/03/2012	<R59,750	0%
	R59,750 – R300,000	10%
	>R300,000	28%

- Excess mass at corporate income tax kinks estimated
- Sizable bunching at each of the thresholds



# Effect on policy

- Some suggestive evidence that part of the response is driven by tax avoidance/tax planning
- The original goal of encouraging economic activity and job creation by applying a graduated corporate tax rate schedule is partly mitigated by the lack of distinctive real economic responses to tax incentives.

# How large is the wage penalty in the labour broker sector?

By Aalia Cassim and Daniela Casale



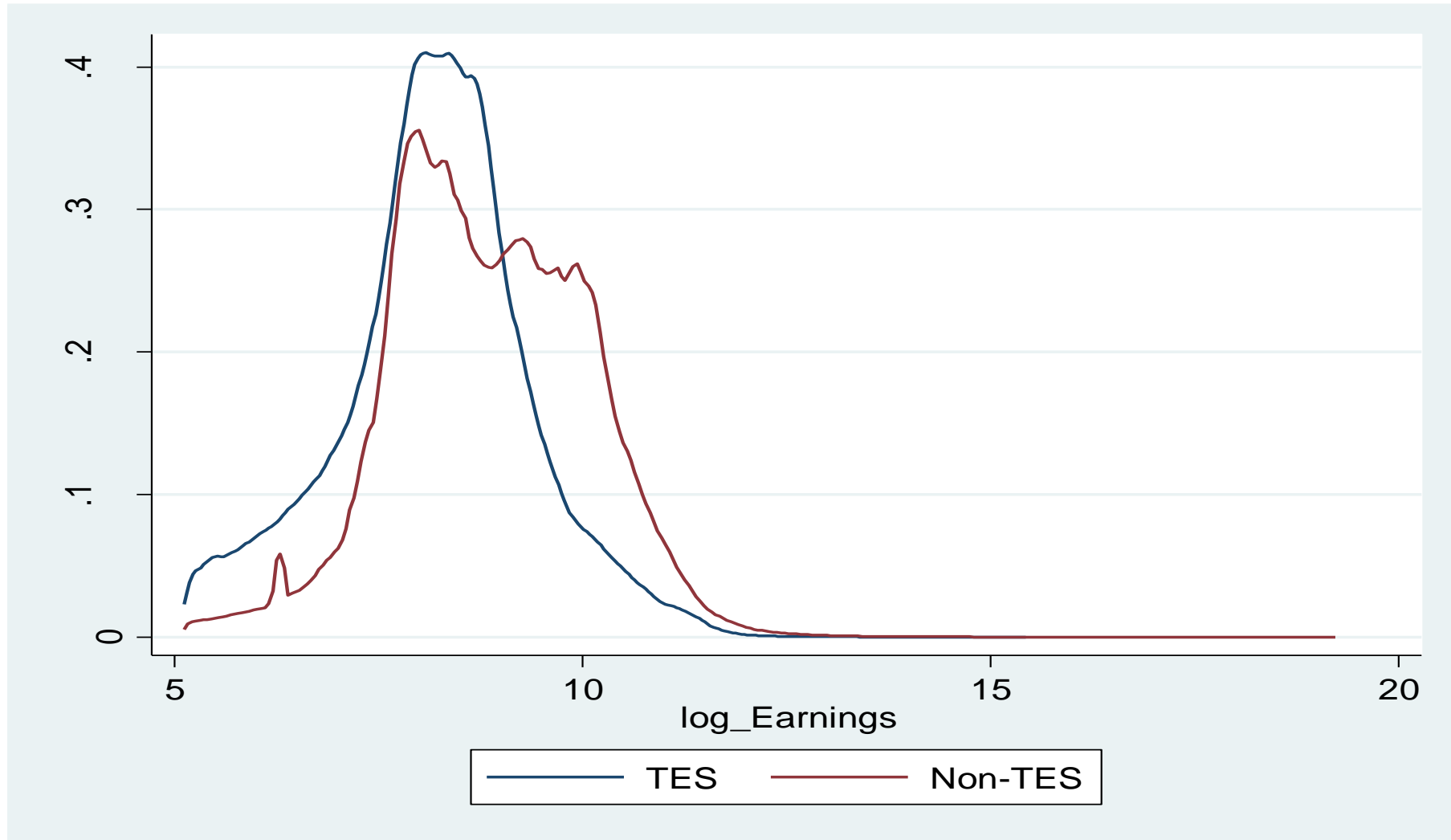
# Intro

- The use of temporary employment has grown both globally and in South Africa
- Expected that there would be a wage differential between temporary workers and non-temporary workers
- Public debate on temporary employment services (TES), or the labour broker sector, has largely centred around the issue of decent work, and specifically the wages and benefits afforded to temporary workers.
- Discrimination in the labour broker sector resulted in amendments in the Labour Relations Act (LRA) in 2015 to better regulate the sector and offer greater protection to TES workers.

# Findings

- Large penalty associated with TES employment, even after various controls are introduced
- Wage penalty of around 30 per cent when using total earnings
- Wage penalty due to differences in the benefit contributions (for pension, medical aid, and unemployment insurance) for TES versus non-TES workers.

# A first look at wage differentials



# Effect on policy

- As more years of data become available, can examine the impact of the amendments to the LRA of 2015 on both TES firm and their employees.
- The trade-off between protection of temporary employees and the potential disemployment effects has been the subject of some debate, but empirical analysis has not been possible
- The descriptive statistics suggested that the benefit gap is much higher at the upper end of the income spectrum, whereas at the lower end, workers in both sectors receive few benefits.

# Conclusion

- Lots of great potential for use of administrative data
  - Documentation, cleaning, regular updates important
  - Geospatial, inequality, enterprise level research
- 60+ WIDER research projects planned over the next three years
- Improved policy making



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