It takes two to *tango*: labor responses to an income tax holiday in Argentina

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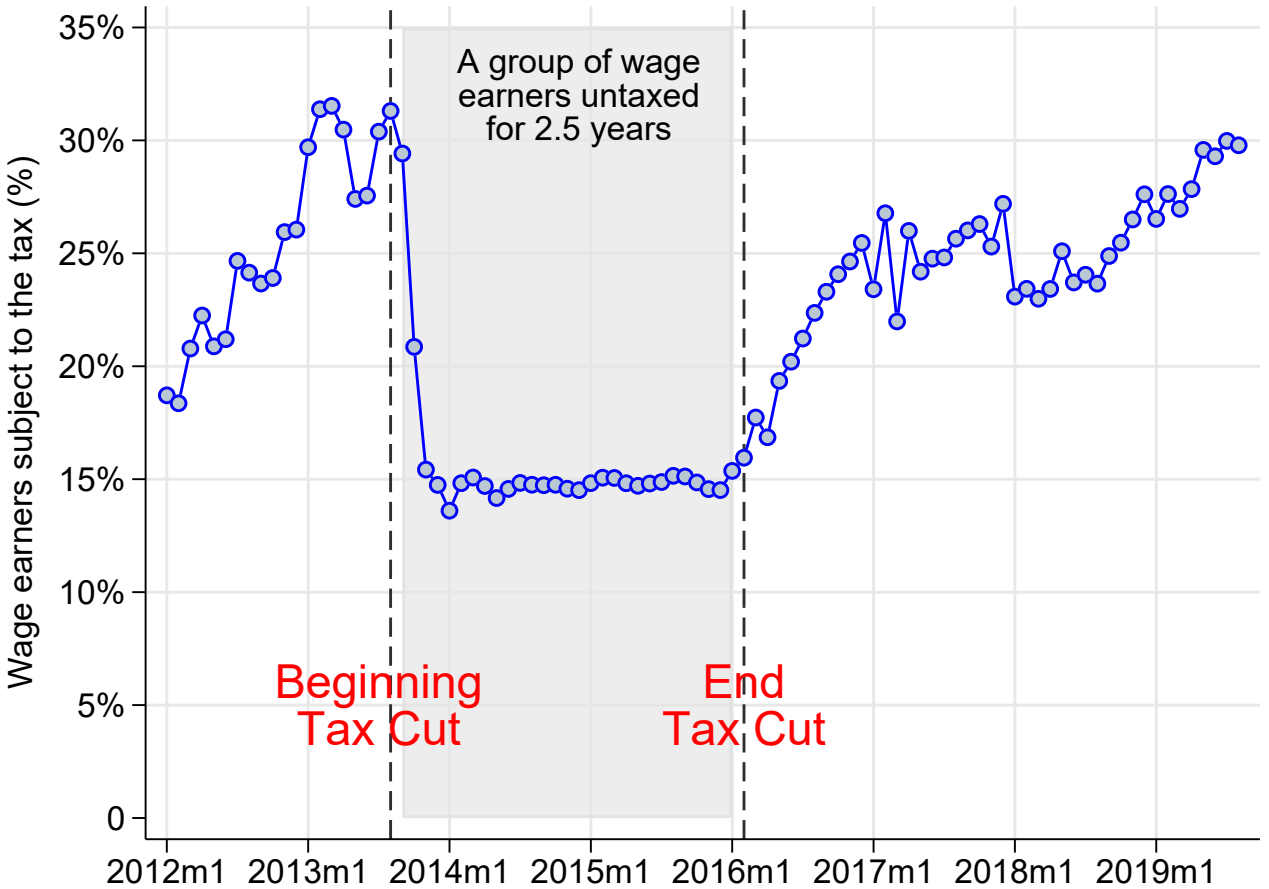
Outline

A temporary tax cut on p70-p85

Wage earners subject to the income tax, 2012-2019 (%)

≈1.4m untaxed (30% ↘ 15% of registered wage earners)



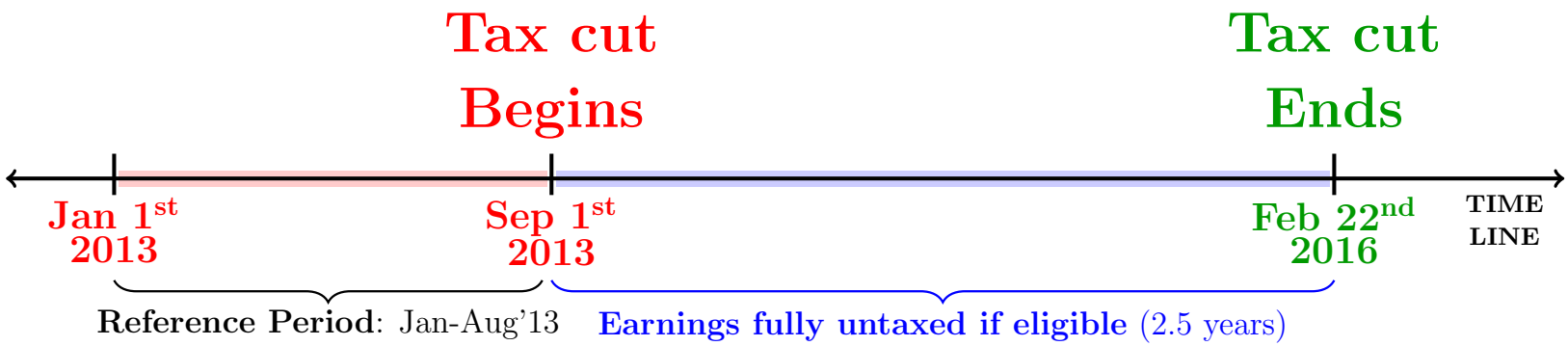
How do high-wage earners respond to a temporary 0% income tax rate?

- The taxation of high-earners is front and center in the policy debate
  Critics: efficiency costs due to behavioral responses [Slemrod' 95]

- Convincing evidence on **tax avoidance**, but less on **real responses** [Saez et al. '12]
  - $\Delta taxes$: $\approx$small + identification difficulties (e.g., kinks at the high end)
  - Data limitation: tax return data not well-suited (e.g., no hours of work)

- **This paper**: labor responses of upper-wage earners to temporary $\Delta taxes$
  - Rich administrative data (SSA)
  - One of the cleanest quasi-randomized experiments to date

An income tax holiday for upper-wage earners

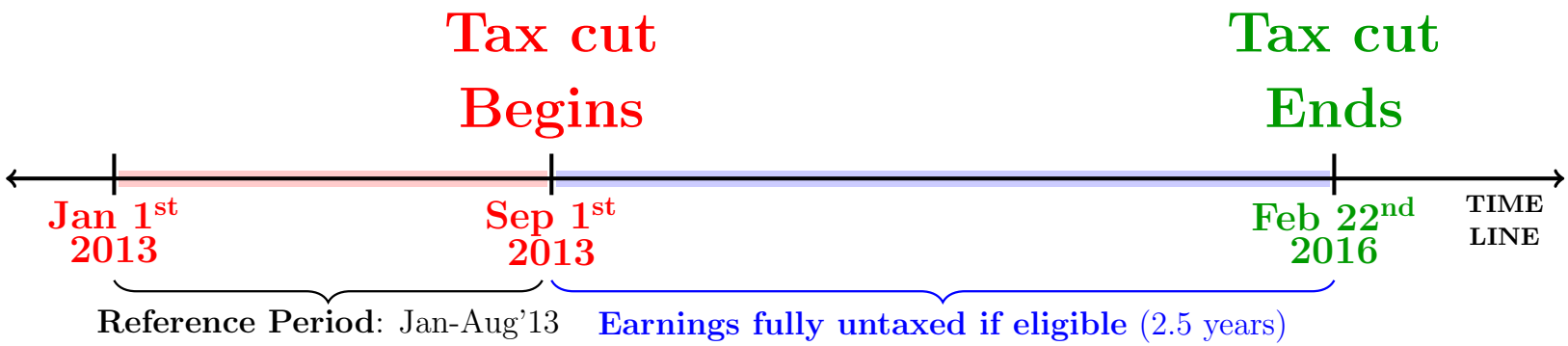


Fully exempt if **wage earnings**$\leq$**fixed threshold** ($\approx$p70–p85 untaxed)

2 simple eligibility rules:

Context: bracket creep

An income tax holiday for upper-wage earners



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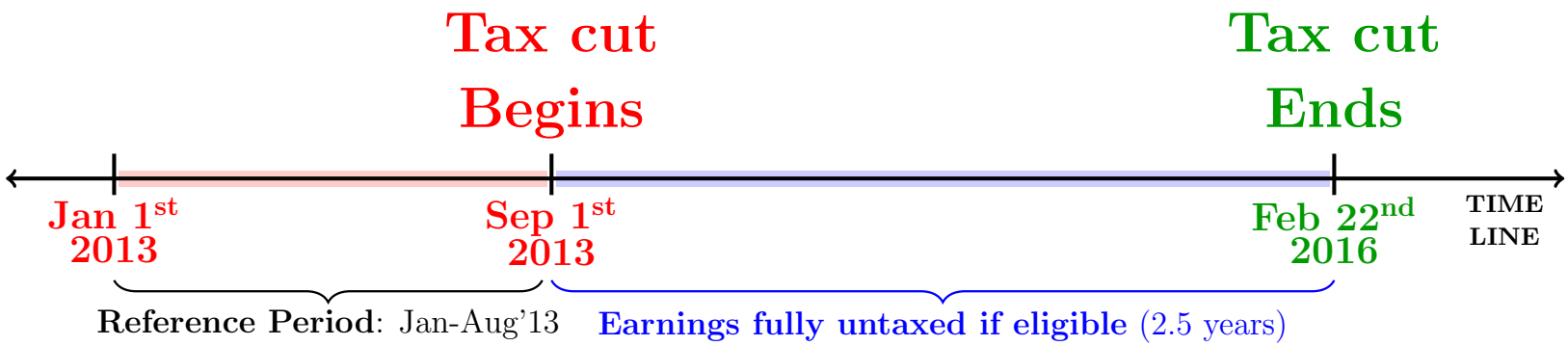
   $\{$**Highest** monthly wage btw Jan-Aug 2013$\} \leq$ AR\$ $15,000$
   Backward-looking rule that precludes manipulation $\Longrightarrow$ **RDD**

An income tax holiday for upper-wage earners



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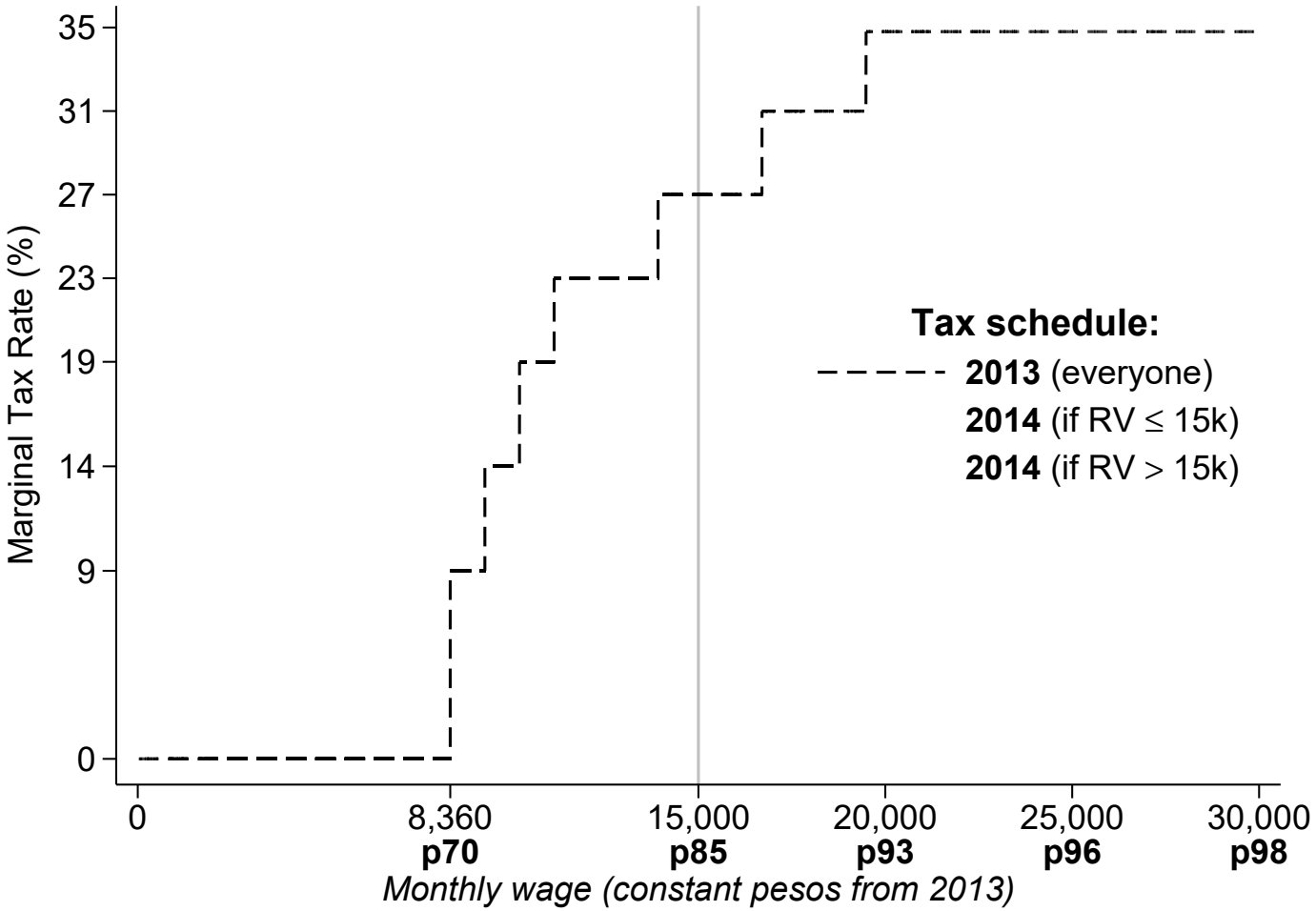
   Backward-looking rule that precludes manipulation $\Longrightarrow$ **RDD**

2. **Non-wage earners** in Jan-Aug'13:
   $\{$**First** monthly wage$\} \leq$ AR$ 15,000
   Contemporaneous rule subject to manipulation $\Longrightarrow$ **"notch"**

Sharp change in tax rates

0% MTR and ATR for eligible employees btw Sep'13-Feb'16

(RV = highest monthly wage btw Jan-Aug 2013)



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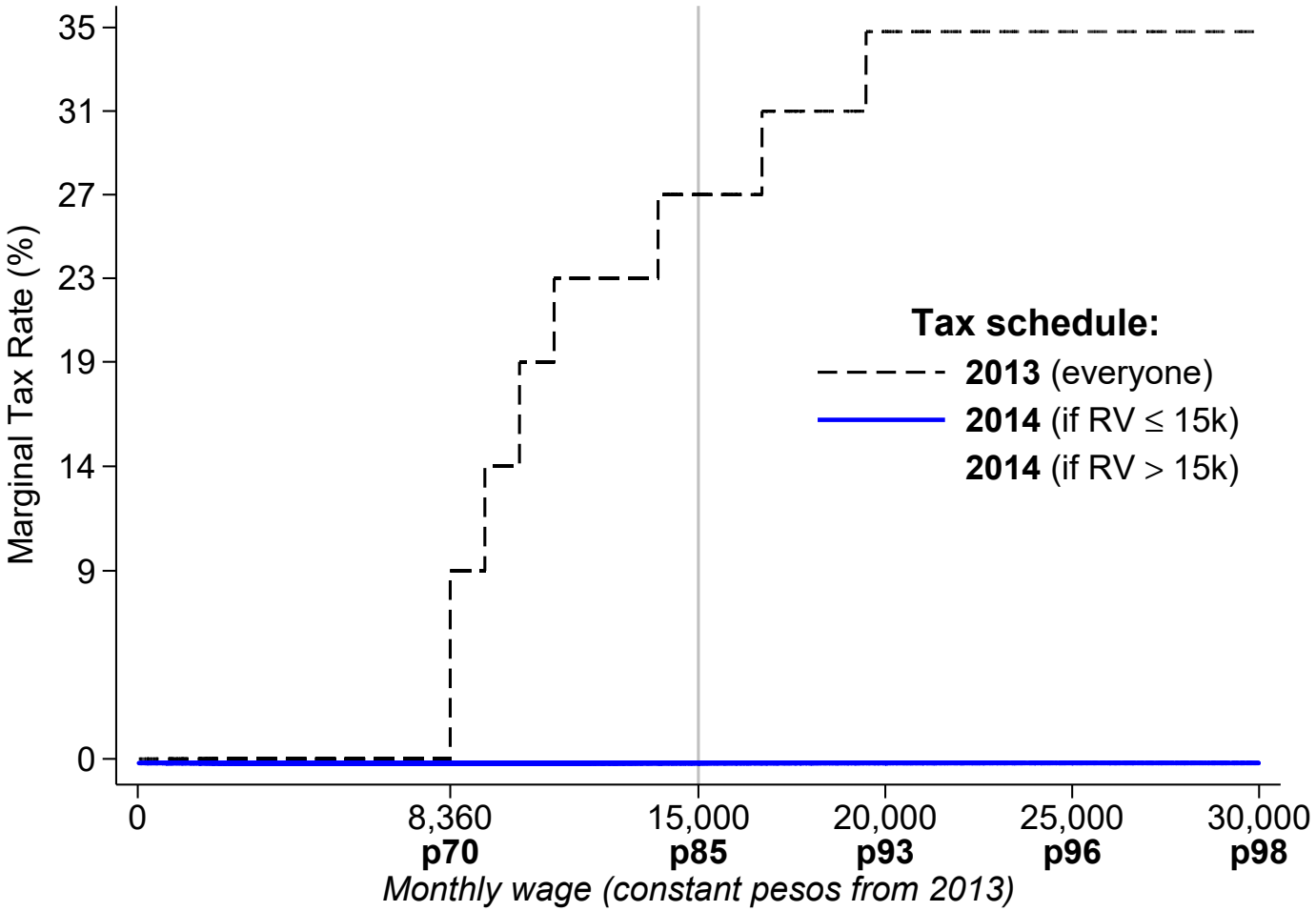

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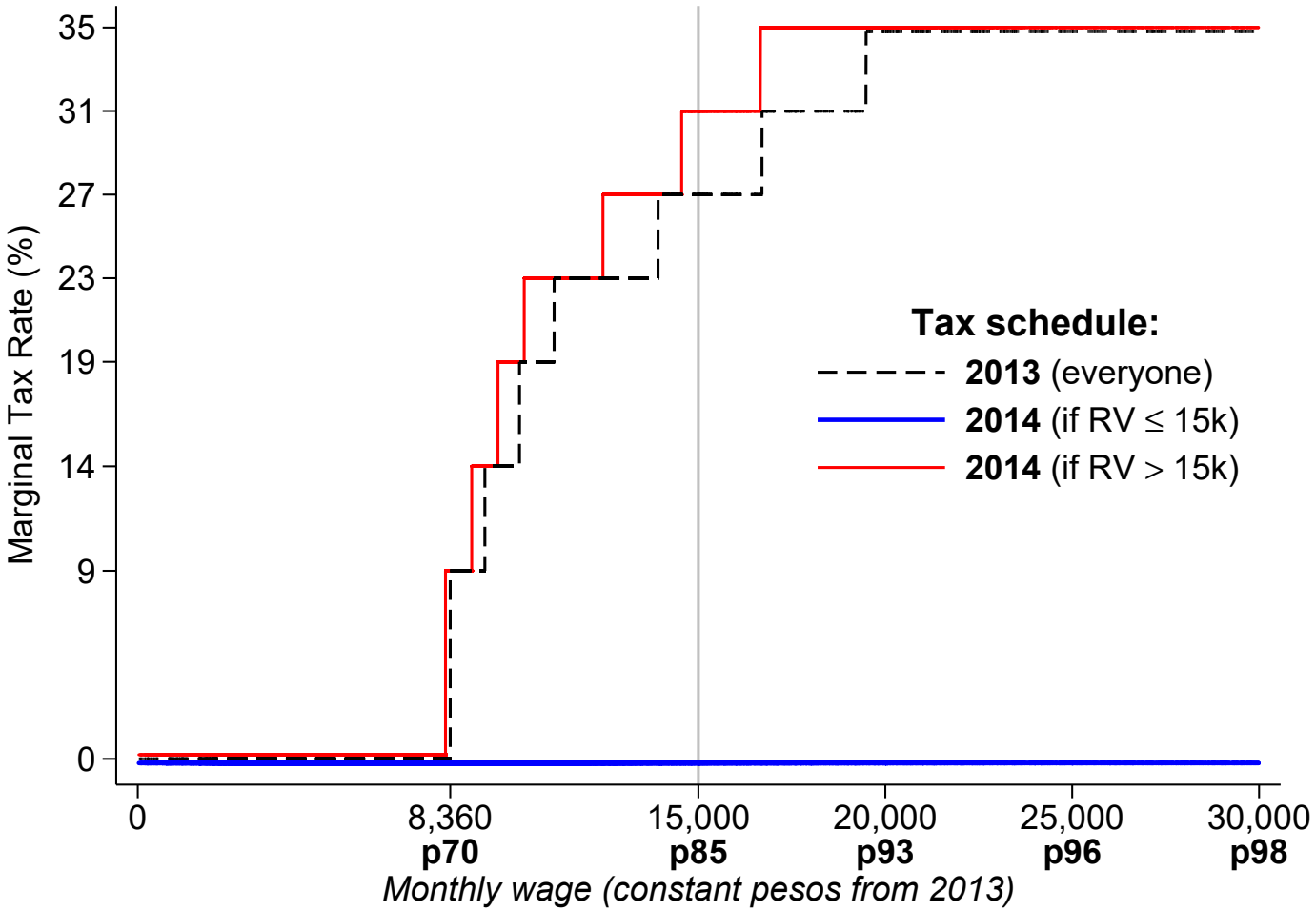

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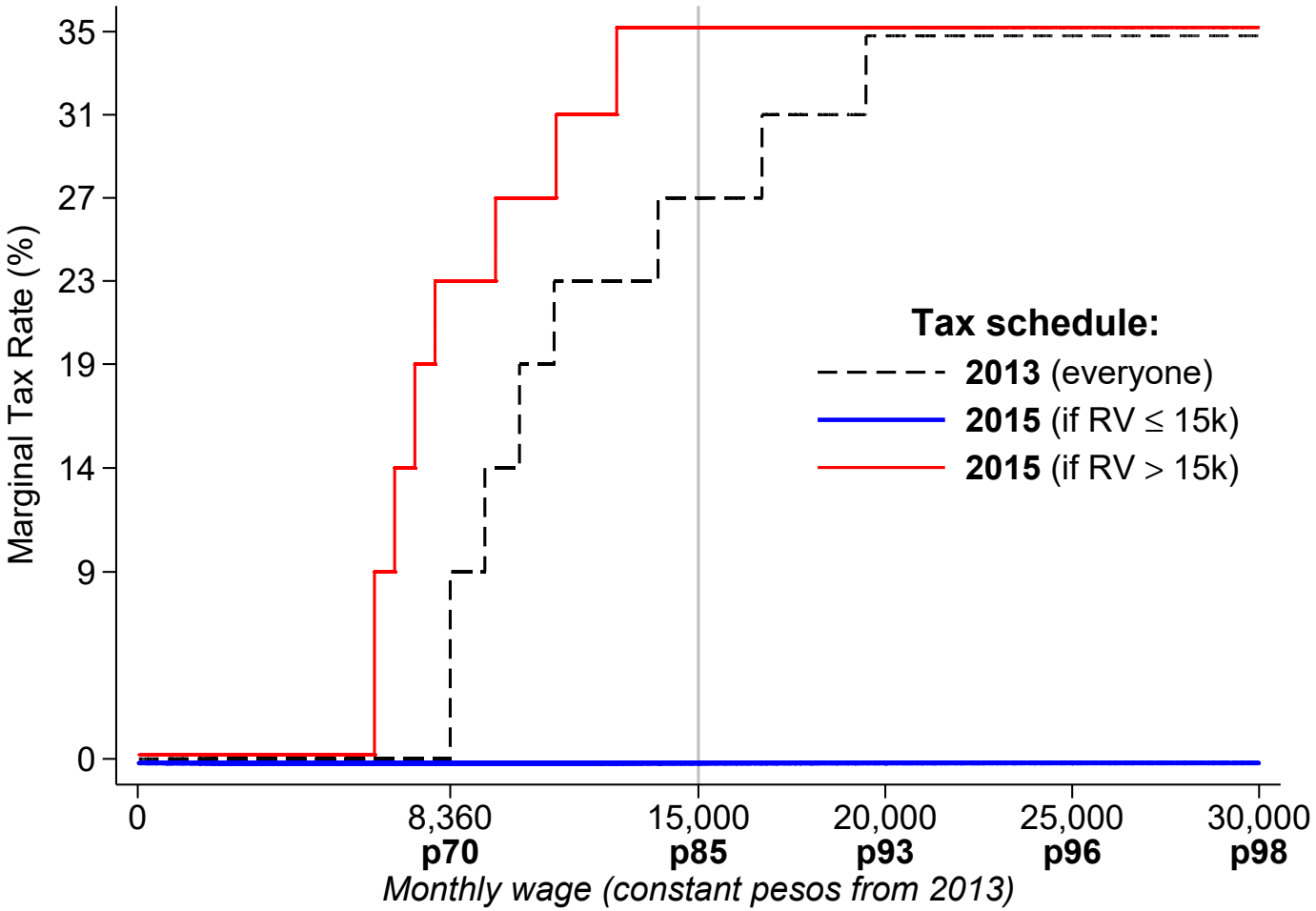

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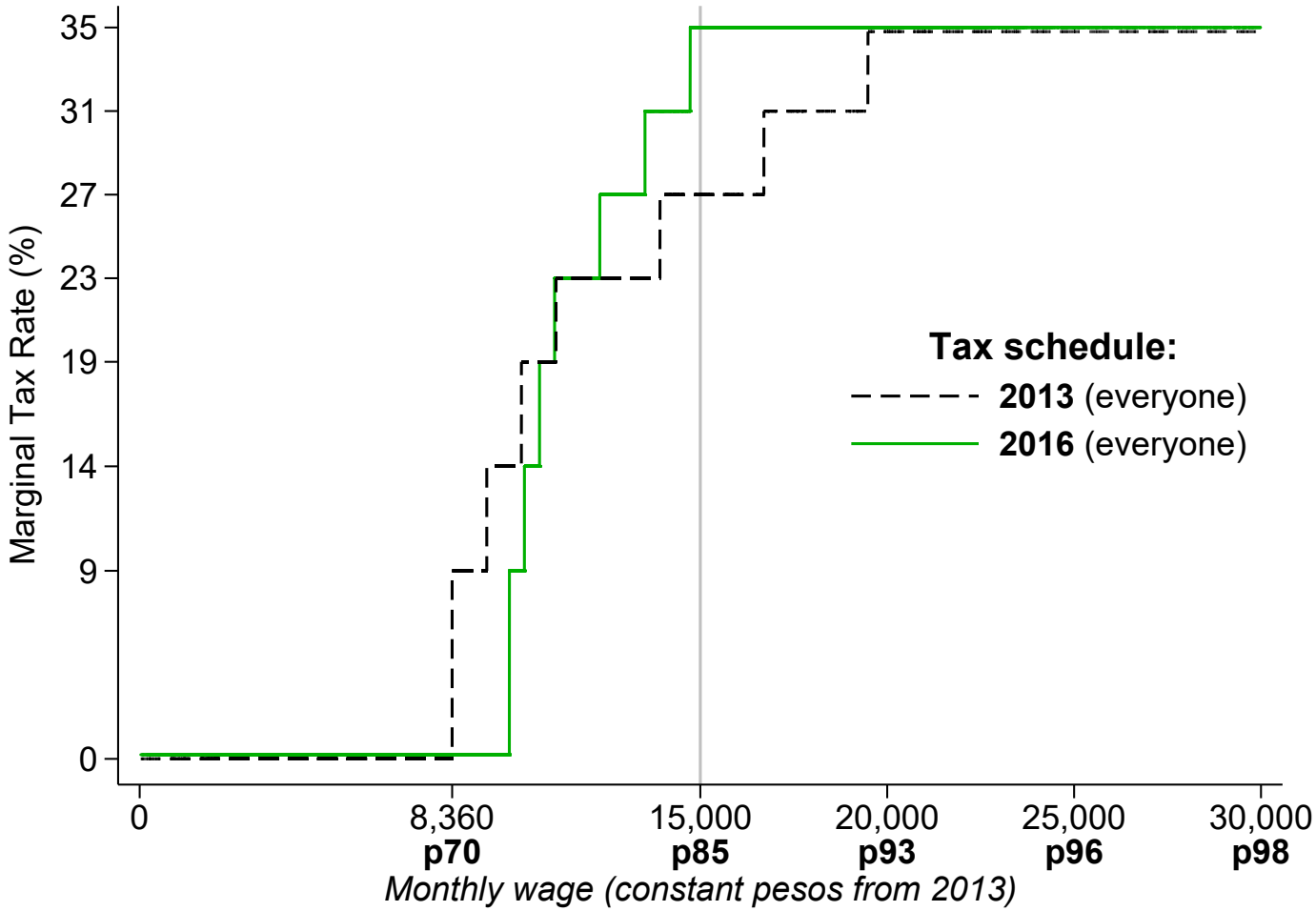


Preview of results

(1) **Large and salient decrease in tax rates**:

- ↓ MTR from 27% to 0% for single workers (below the threshold)
- ↓ ATR from 7% to 0% for single workers (below the threshold)

Much bigger than other studies

(2) **Very small and precise response** of upper-wage earners to a 2.5 year-long income tax cut (hours and monthly wages: $e \sim 0.02$)

(3) Low responses might be driven by **labor demand constraints** and **labor market rigidities** (ej. fixed hours, centralized wage-setting)

- overtime hours ($e \sim 0.2$)
- job switchers ($e \sim 0.1$)
- managers/executives ($e \sim 0.3$, possibly avoidance)
- new entrants (enter strategically below 15k; stronger for executives)

Related literature

- **Labor supply (and ETI)**: two surveys w/ opposite conclusions
  - Saez et al. [JEL'12]: the profession settled on a fairly small compensated elasticity
  - Keane [JEL'11]: casts doubt on such a broad consensus

- **Intertemporal real responses** (scant quasi-experimental evidence)
  - Icelandic tax holiday: Bianchi et al. '01; Sigurdsson '19 (economy-wide)
  - Swiss tax holiday: Martinez et al. '19 (economy-wide)
  - Argentine quasi-randomized tax holiday (on upper-wage earners)

- **Misc (adjustment costs, firm preferences, overtime work)**:
  Chetty et al. '11; Kleven–Schultz '14; Kreiner et al. '16; Tazhitdinova '15, '19; Cahuc–Carcillo '14

- **Micro vs Macro dispute**:
  Chetty et al. NBER'13; Attanasio et al. ECMA'18

Outline

Administrative Data

(1) **Employer-employee (SICOSS)** SICOSS

Rich variables & high frequency (monthly panel 1995-2019):

- wage earnings: monthly wage, subcomponents (overtime pay/hours, bonuses, commissions, seniority, 13th salary)
- other: gender, DOB, type of contract, 4d sector, private/public

(2) **Simplificacion Registral** (employee registry)

Employers report: address of the firm-branch; address of workers; workers' occupations; labor union code; education level

(3) **Family links (ADP)**

Links workers to dependents (spouse, children) accurately since 1970s

(4) **Financial data (CENDEU)**

Monthly outstanding debt; credit score 1 to 6 (at the person-bank level)

Summary statistics

Registered wage earners in Argentina, 2013

	10k-15k	15k-25k	**14k-16k**	All
	(1)	(2)	**(3)**	(4)
Share of the data	0.142	0.089	**0.036**	1
Decile earnings Jan-Aug'13	8	9	**8-9**	1-10
Age	43.1	45.7	**44.6**	40.4
Public worker (%)	0.410	0.454	**0.421**	0.310
Unionized (%)	0.452	0.459	**0.460**	0.492
Female (%)	0.385	0.334	**0.354**	0.398
Number of jobs	1.05	1.10	**1.07**	0.92
Multiple jobs (%)	0.070	0.110	**0.087**	0.049
Average gross earnings Aug'13	10,816	16,292	**13,203**	8,052
Number of workers	1,413,204	881,104	**357,775**	9,936,088

Note: Summary stats for private and public registered wage earners. Groups 1-3 are defined based on the highest gross monthly wage between January and August 2013. ER in October 2013 was 5.8.

In 2013, $\sim$450k private firms, $\sim$10m wage earners (70% private)

Empirical Strategy

1. **RDD:** to compare workers around the cutoff
   - **Basic idea**: plot average outcomes by bins of the running variable around $c = 15k$ for 1, 2, 3 years after the tax change Details RV
   - **First stage**: Do MTR/ATR change sharply around AR$ $15k$?
   - **Second stage**: Do workers adjust their labor supply in response to this?
   - **Period of study**: 2011-2017

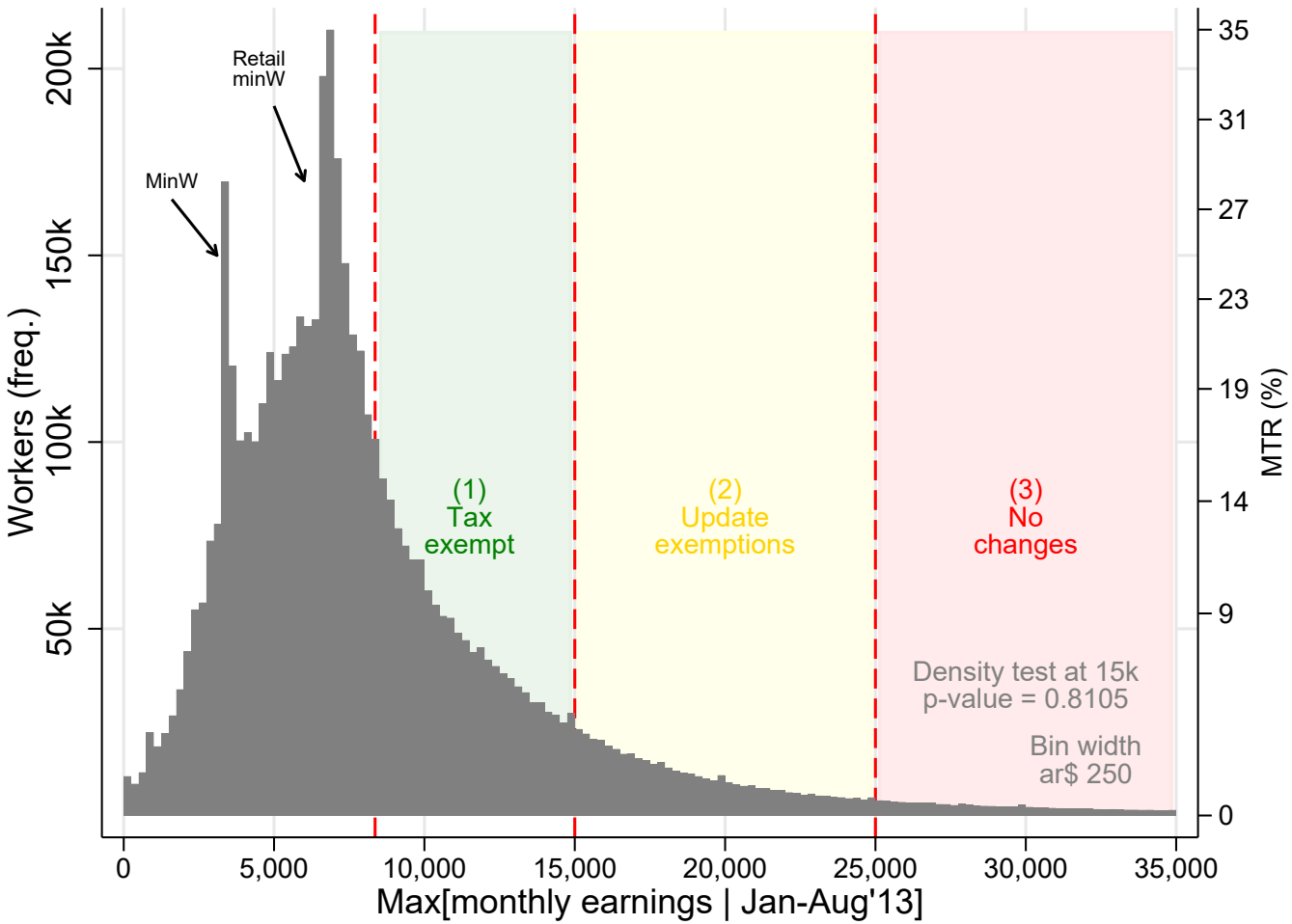
   DinD: to study workers farther away from 15k and when underpowered. T (running variable 10k-15k) and C (running variable 15k-20k)

2. **Density analysis:** (i) first monthly wage around 15k (PDF and CDF) (ii) observed mass vs counterfactual mass predicted by **inflation**

Outline

The running variable

$$W_{max} \equiv \max\{gross\ monthly\ wage | \text{Jan to Aug 2013}\}$$



Zoom at 15k | Covariate balance

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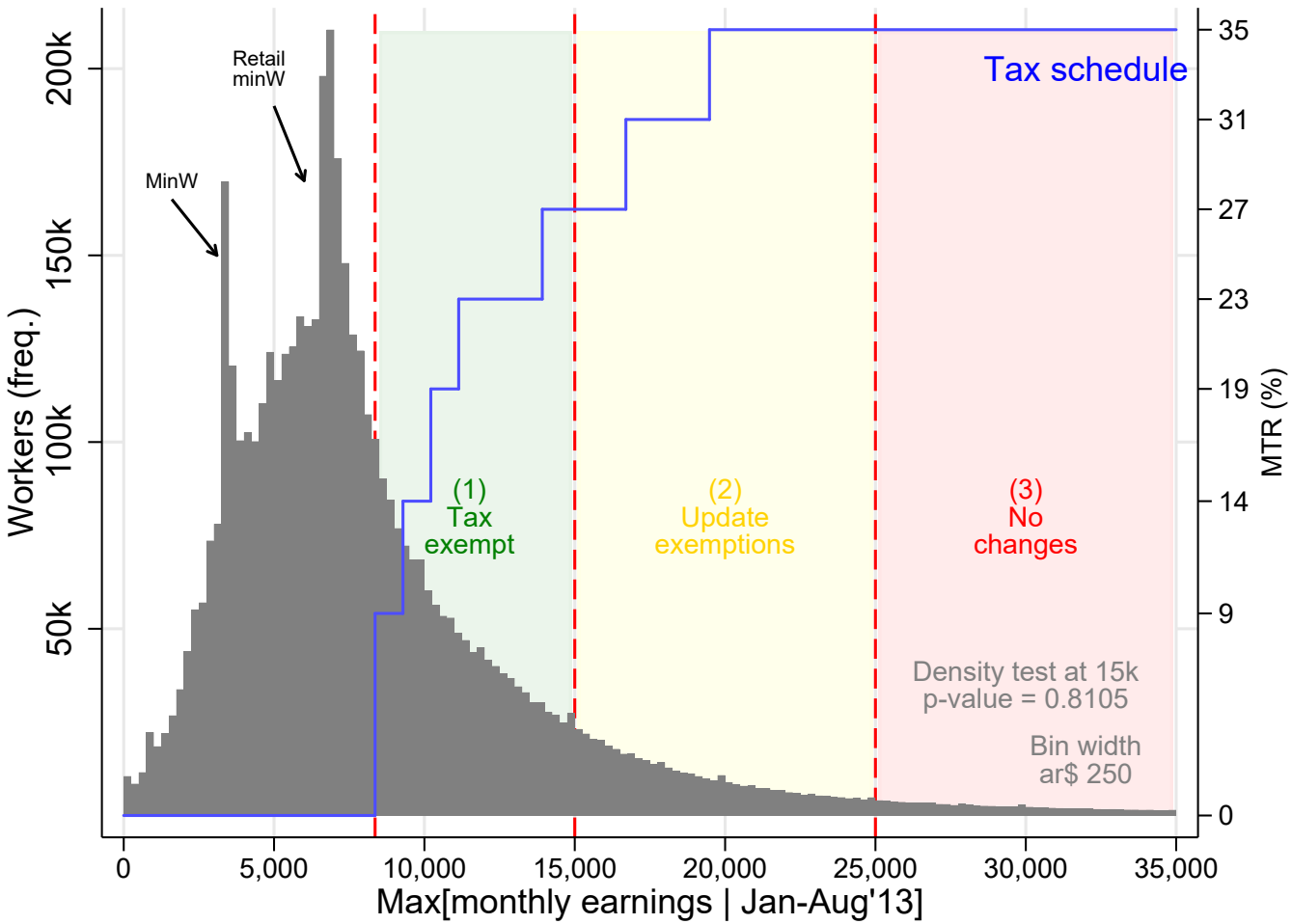

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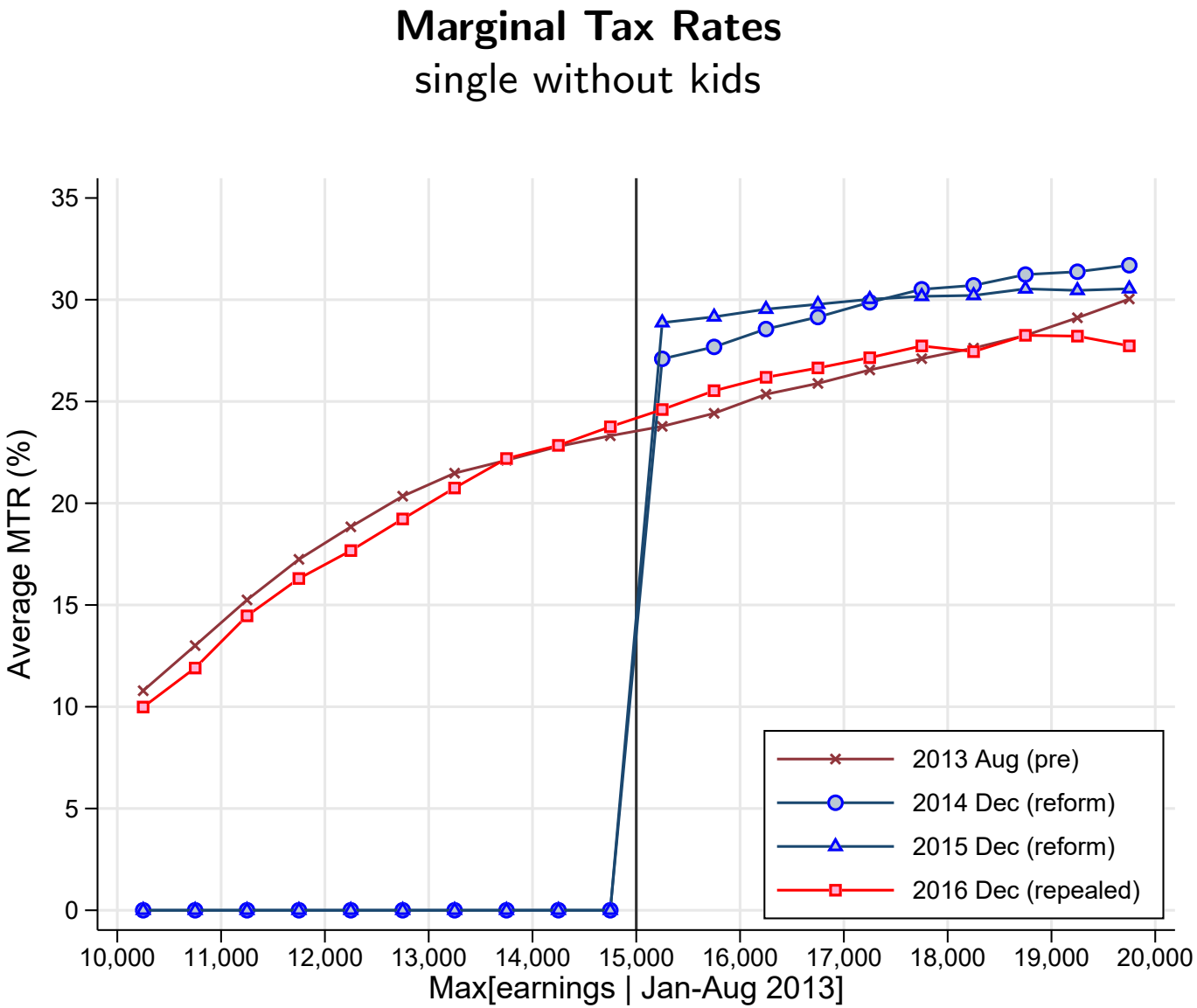
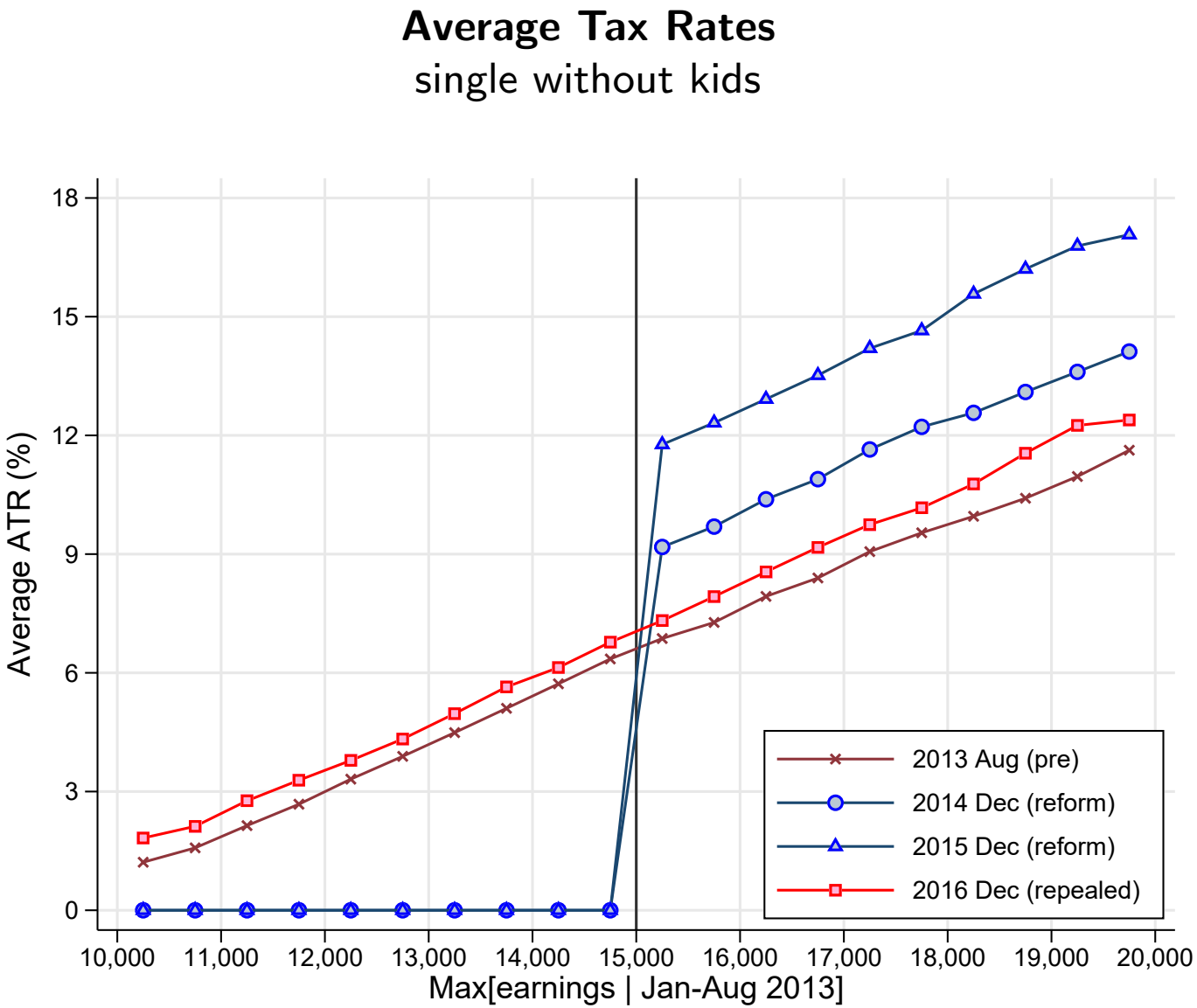
Empirical first stage



Note: Computed using own tax calculator (similar to the TAXSIM in the U.S.). Married

Empirical first stage



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Salience

Were workers aware of the reform?
Income tax is indeed very salient in Argentina

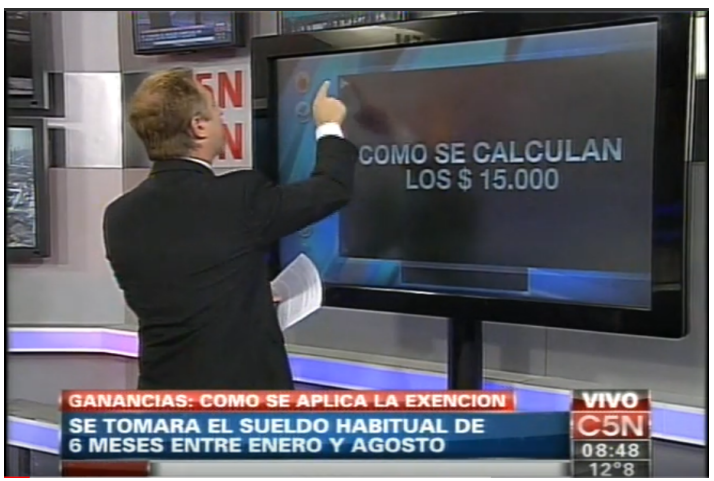
- Amply discussed in the media (TV, forums, newspapers) Link
- Spikes in Google Trends searches for tax-related terms Link
  – mass strikes to request updates in the exemption floor March'15
- 2 lines on pay stubs (mandated by the Executive Order)
  – one with monthly tax withholdings
  – another one crediting the tax back

Saliency: live TV coverage

(a) Announcement (Aug 27th)

(b) President (Aug 27th)

(c) Head of IRS (Aug 28th)



(d) Journalist (Aug 30th)

Saliency: pay slip

TTTTTTTTTT Y ASOCIADOS SA — CUIT Nº 30-XXXXXXXX-3

AV.PASEO XXXXX ZZZ CABA – Capital Federal

APELLIDO Y NOMBRE	C.U.I.L	LEGAJO
ZZZZZZZZ YYYYYYY	20-XX.XXX.XX-8	285

FECHA DE INGRESO	REMUNERACION ASIGNADA	RECIBO Nº
01/12/2014	13.719,60	6346

SECCION: OF.CENTRAL
CATEGORIA: Empleado
CALIFICACION PROFESIONAL: Empleado

PERIODO DE PAGO: SEPTIEMBRE 2015 — Period: September 2015

CONTRATACION: A tiempo completo indeterminado

CONCEPTO		UNIDADES	REMUNERACIONES SUJETAS A RETENCION	REMUNERACIONES EXENTAS	DESCUENTOS
0100	SUELDO BASICO		13.719,60		
0120	Almuerzos.Art9	22,00	1.980,00		
0401	JUBILACION 11%				1.726,96
0402	LEY 19032				470,99
0405	OBRA SOCIAL				470,99
6980	RETENCION GANANCIAS				4.487,40
6999	Beneficio Decreto PEN 1242/13				-4.487,40
9999	REDONDEO			0,34	
			15.699,60	0,34	2.668,94

Base salary
Meal allowance
SSC: pension (11%)
Health insurance for retirement (3%)
Health insurance (3%)
Income tax withholding
Income tax benefit (credited back)
Gross monthly wage earnings

LUGAR Y FECHA DE PAGO: CAPITAL FEDERAL, 05/10/2015
O.S.: O.S. Comisarios Navales

FORMA DE PAGO: Cuenta Bancaria

TOTAL NETO → 13.031,00

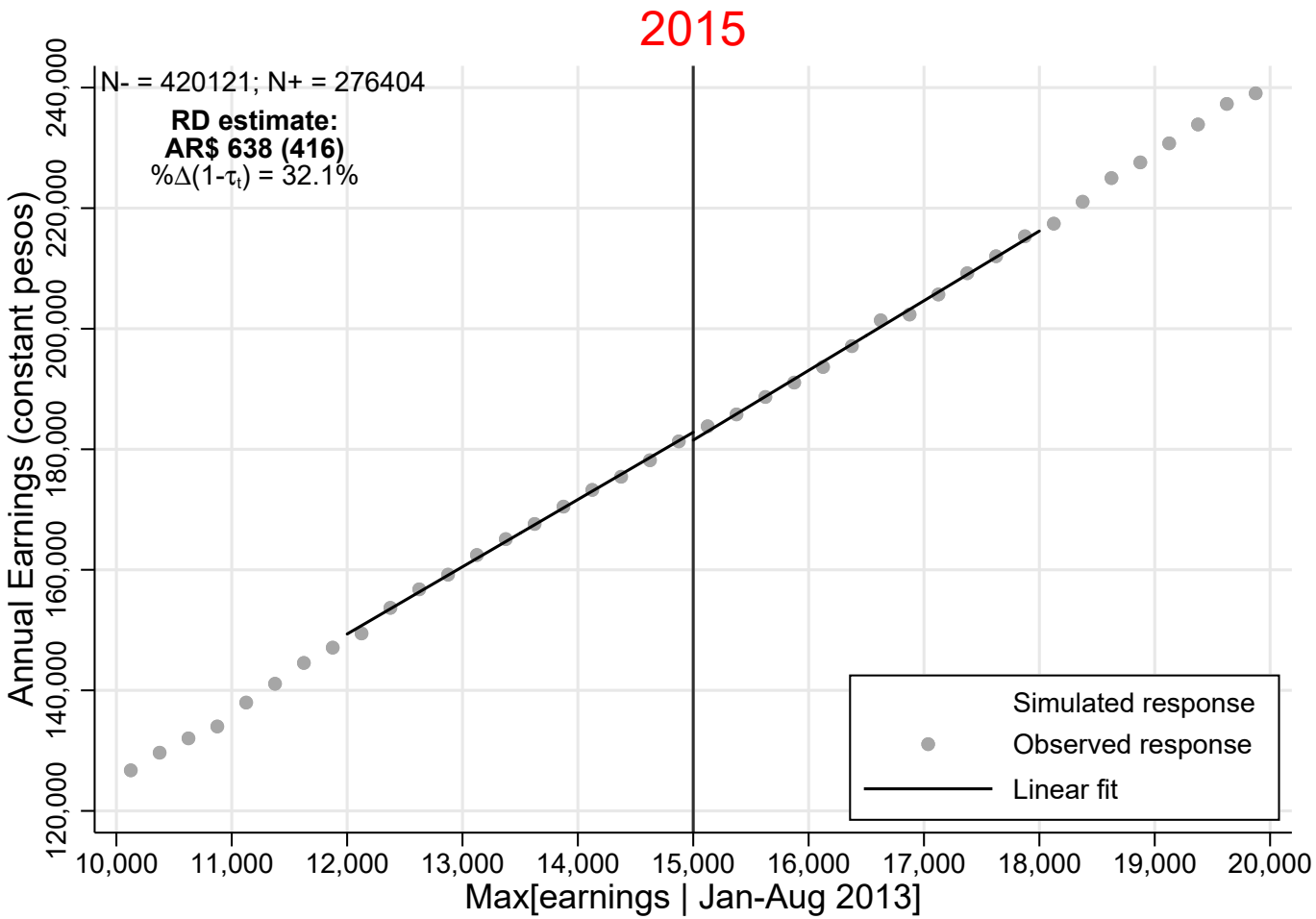
Take-home pay

Another example

Outline

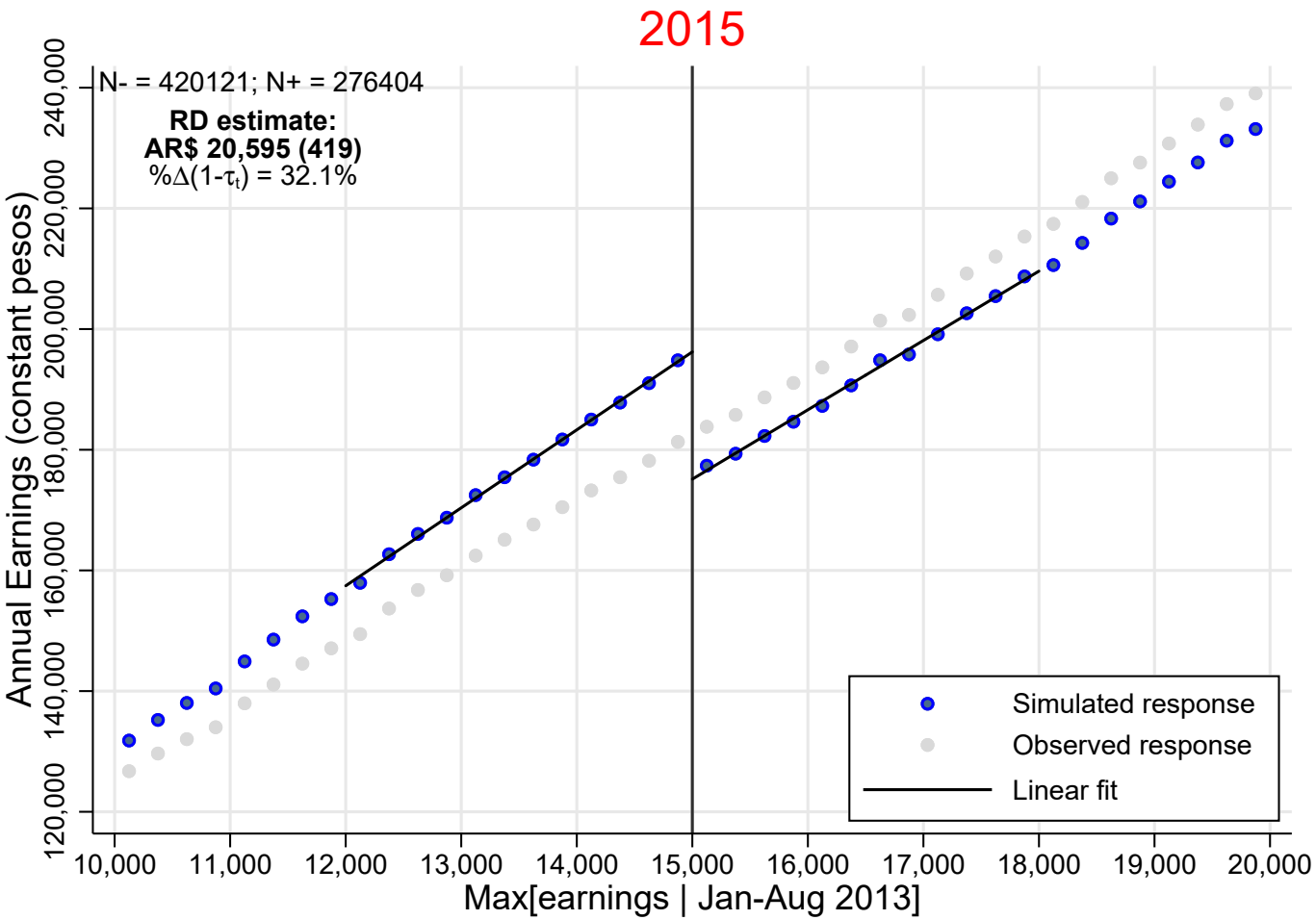
Outline

Observed response after 2 years



Notes: observed response in gray; simulated response in blue in a frictionless world with $e = 0.3$. Earnings are shifted by $0.3 \times \%\Delta(1 - \tau_{it})$, where τ_{it} is the individual empirical MTR pre and post reform (Aug'13 and Dec'15). 20 equally spaced bins of AR$ 250 on each side.

Thought experiment (with $e = 0.3$)



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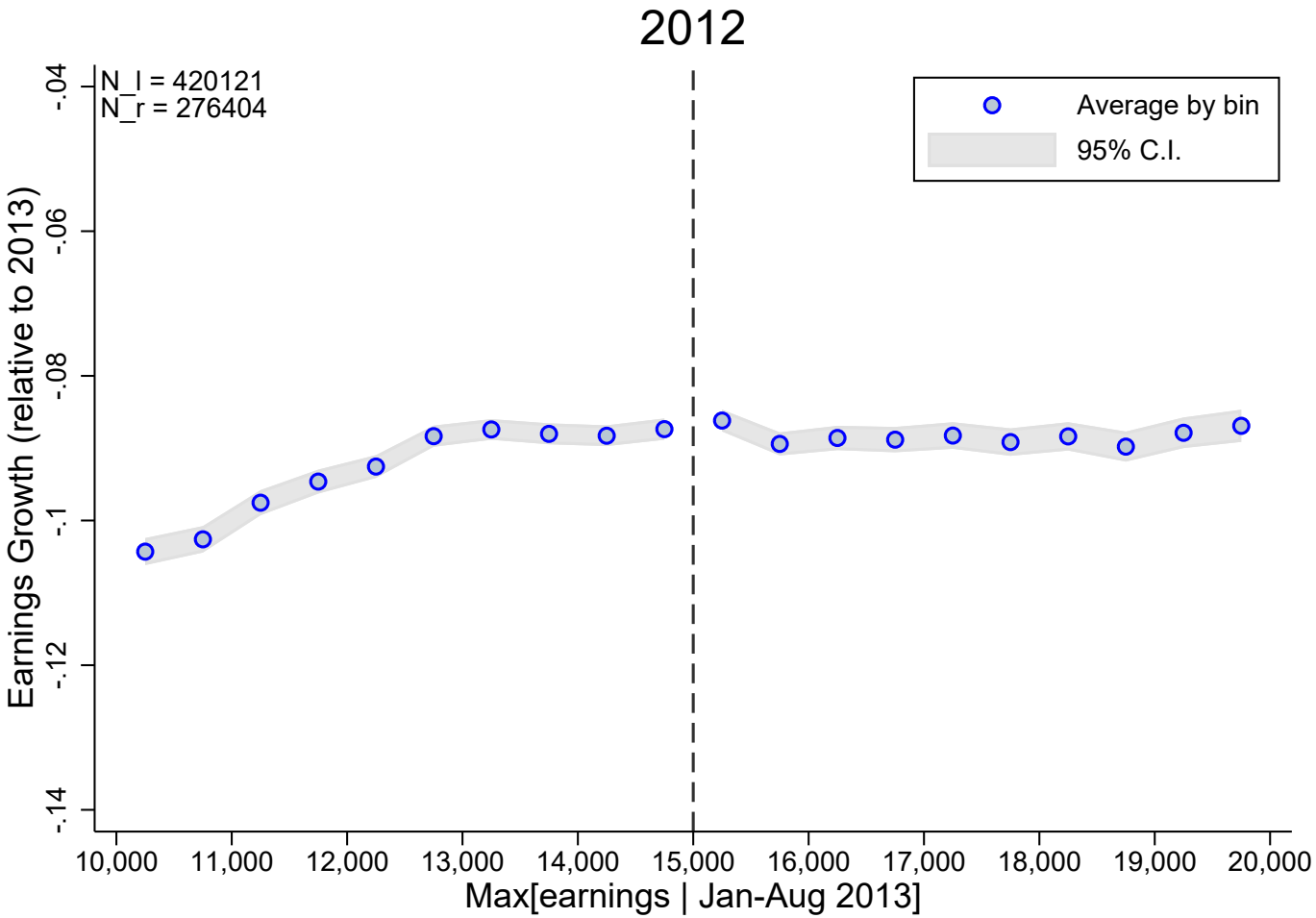
Earnings growth w.r.t. 2013



Note: average growth of (real) annual earnings w.r.t. 2013 within equally spaced bins of AR$ 500. Sample: private sector wage earners. Growth winsorized at p99. Inflation: 19%, 39%, 27% and 36%.

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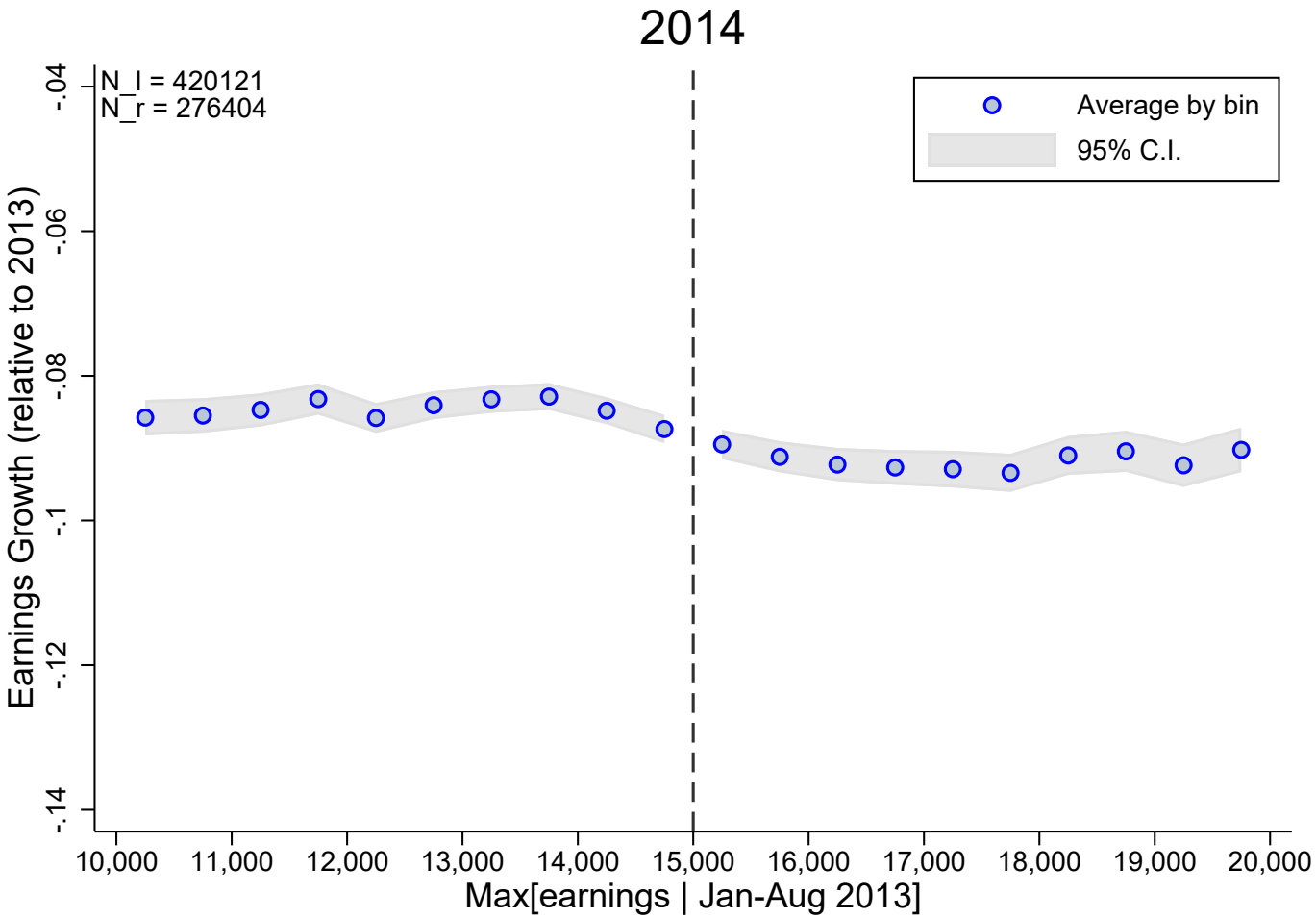

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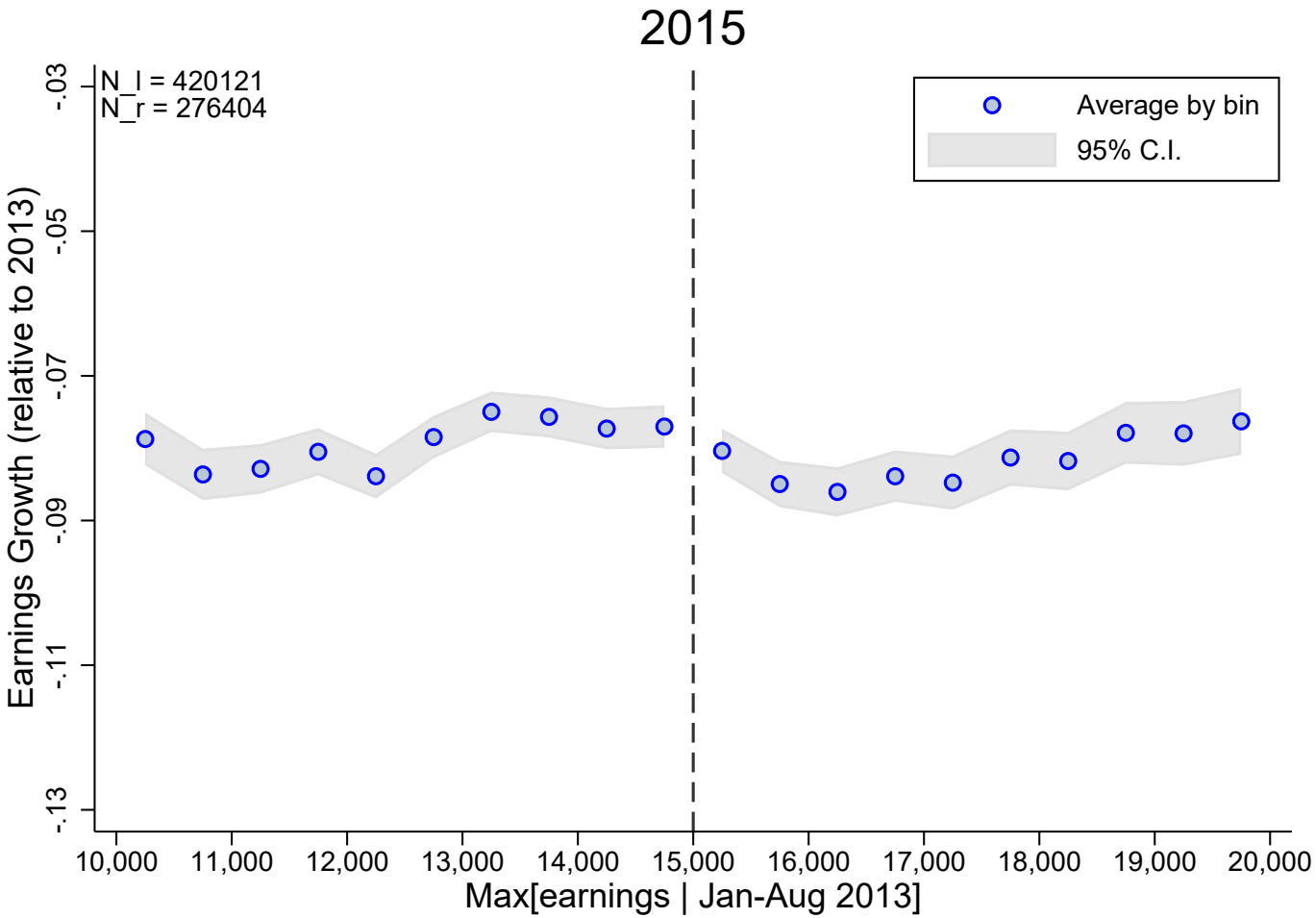

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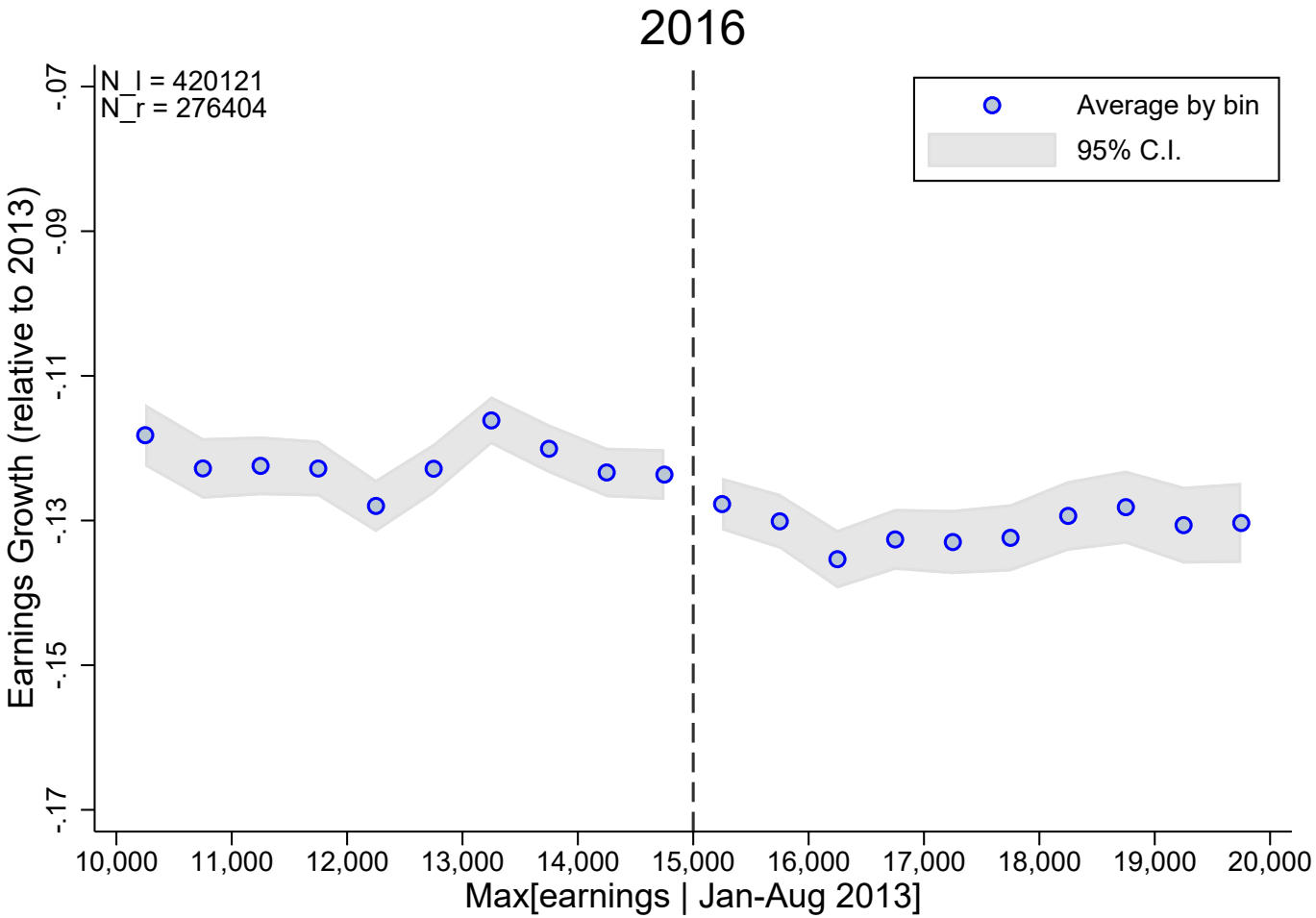

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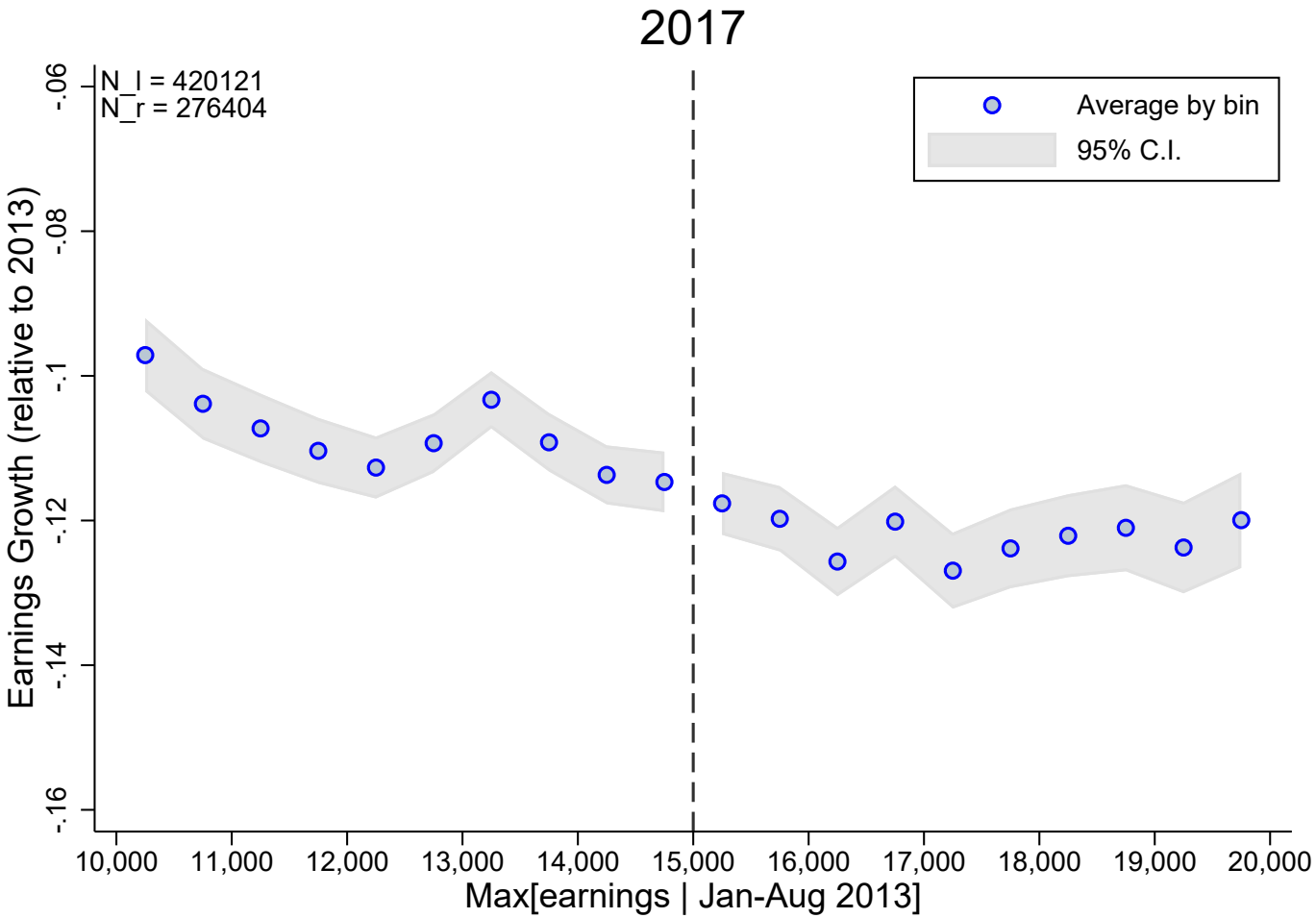

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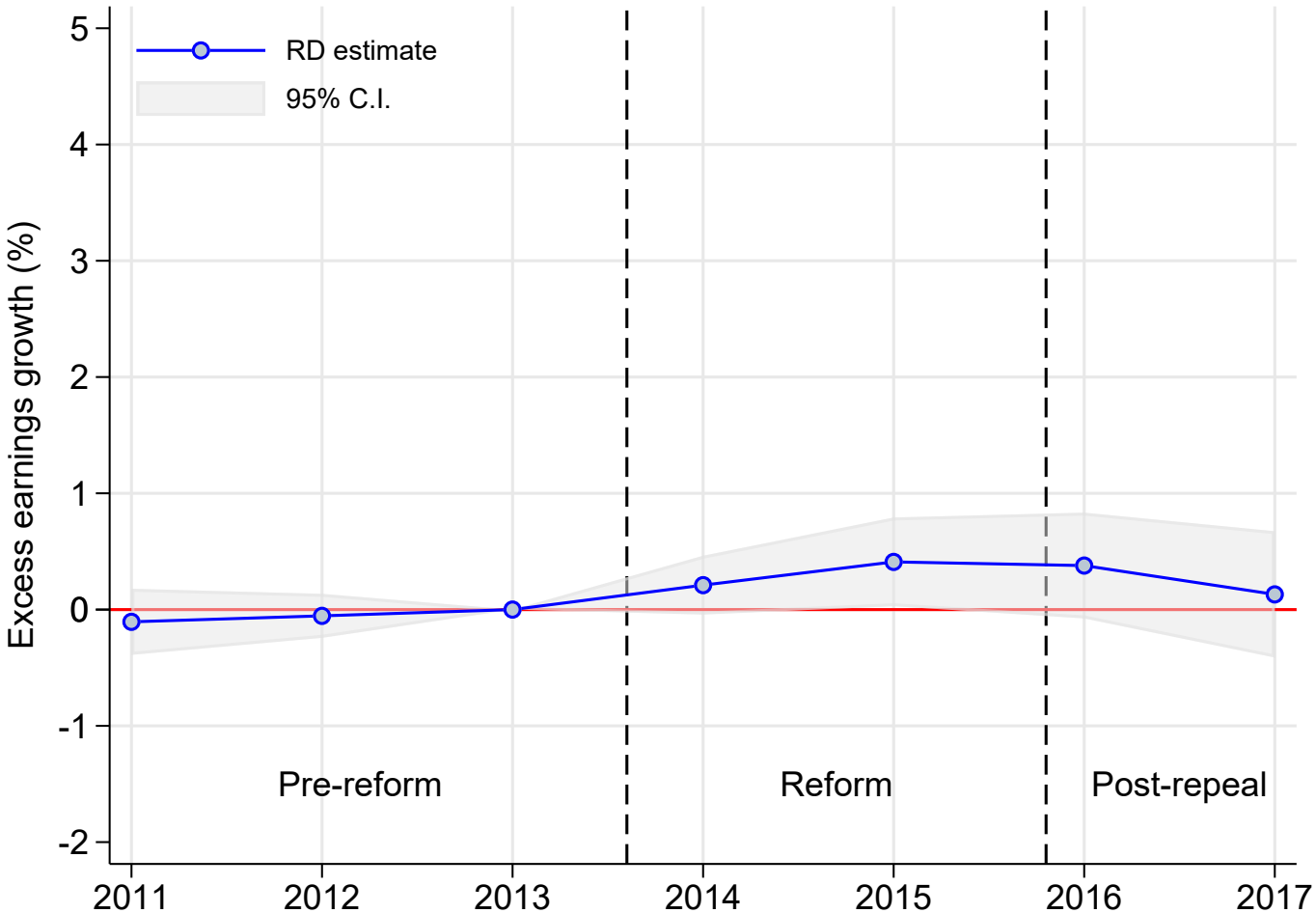
Evolution of RD estimates, 2011-2017



Note: with $e = 0.3$ (thought experiment), excess earnings growth would be 7.5%.

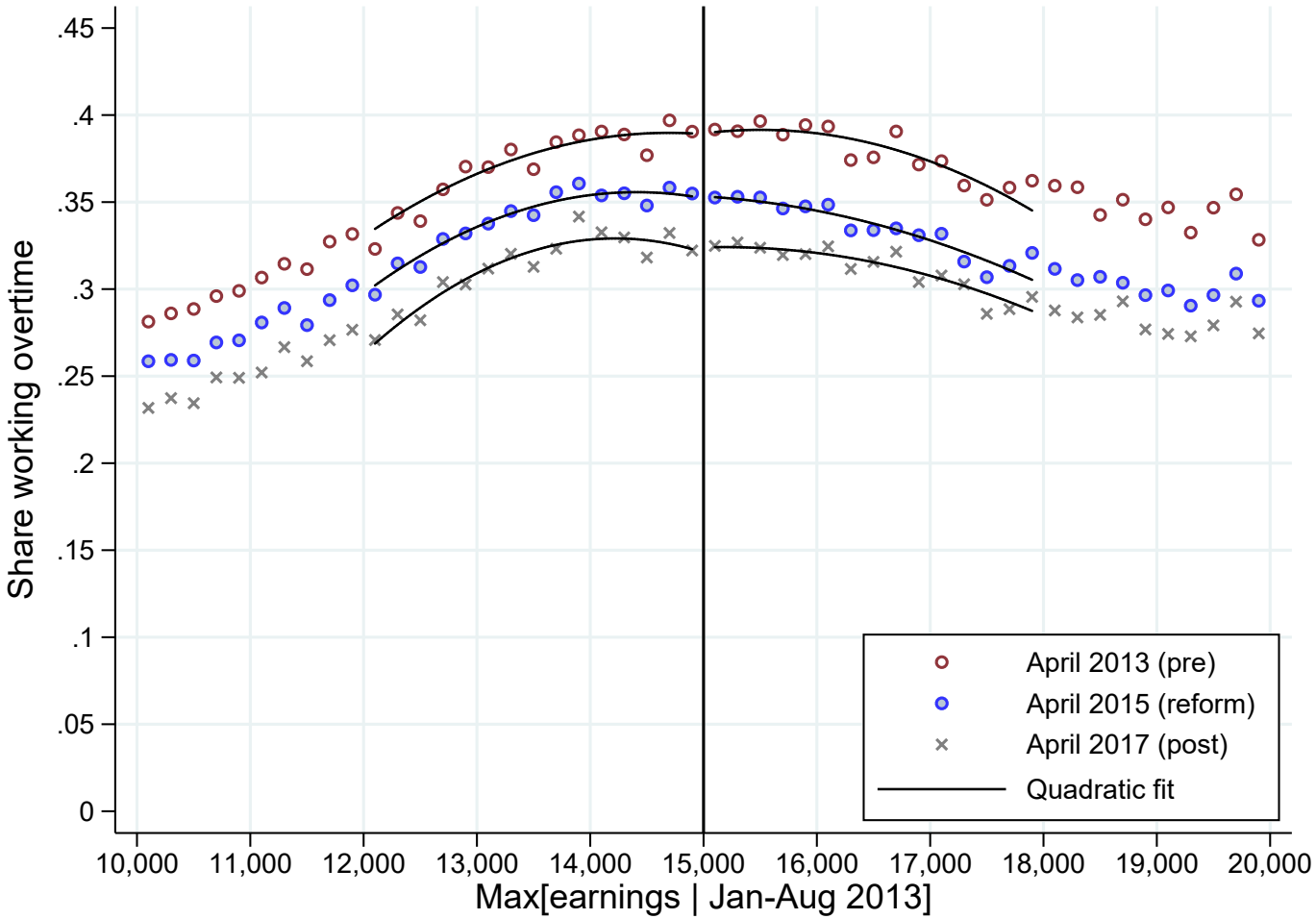
Extensive: Remain employed Robustness checks

Competing explanations for near-zero effect

1. **Lack of saliency?** Ans: Unlikely
2. **Poor enforcement/compliance?** Ans: Unlikely
3. **Incidence (labor demand) channel?** $\uparrow h$ but $\downarrow w$. Ans: Unlikely
4. **Subst. and Income effects cancel out?** Age groups. Ans: Unlikely
5. **Labor demand constraints? Labor market rigidities?** Ans: possibly
   - overtime hours (more discretion)
   - job switchers (new contract)
   - managers/executives (closer to the board of directors)
   - new entrants (easier to coordinate)
6. **Low structural elasticity?** (social norms) Own survey forthcoming

Rigidities: cross-country evidence

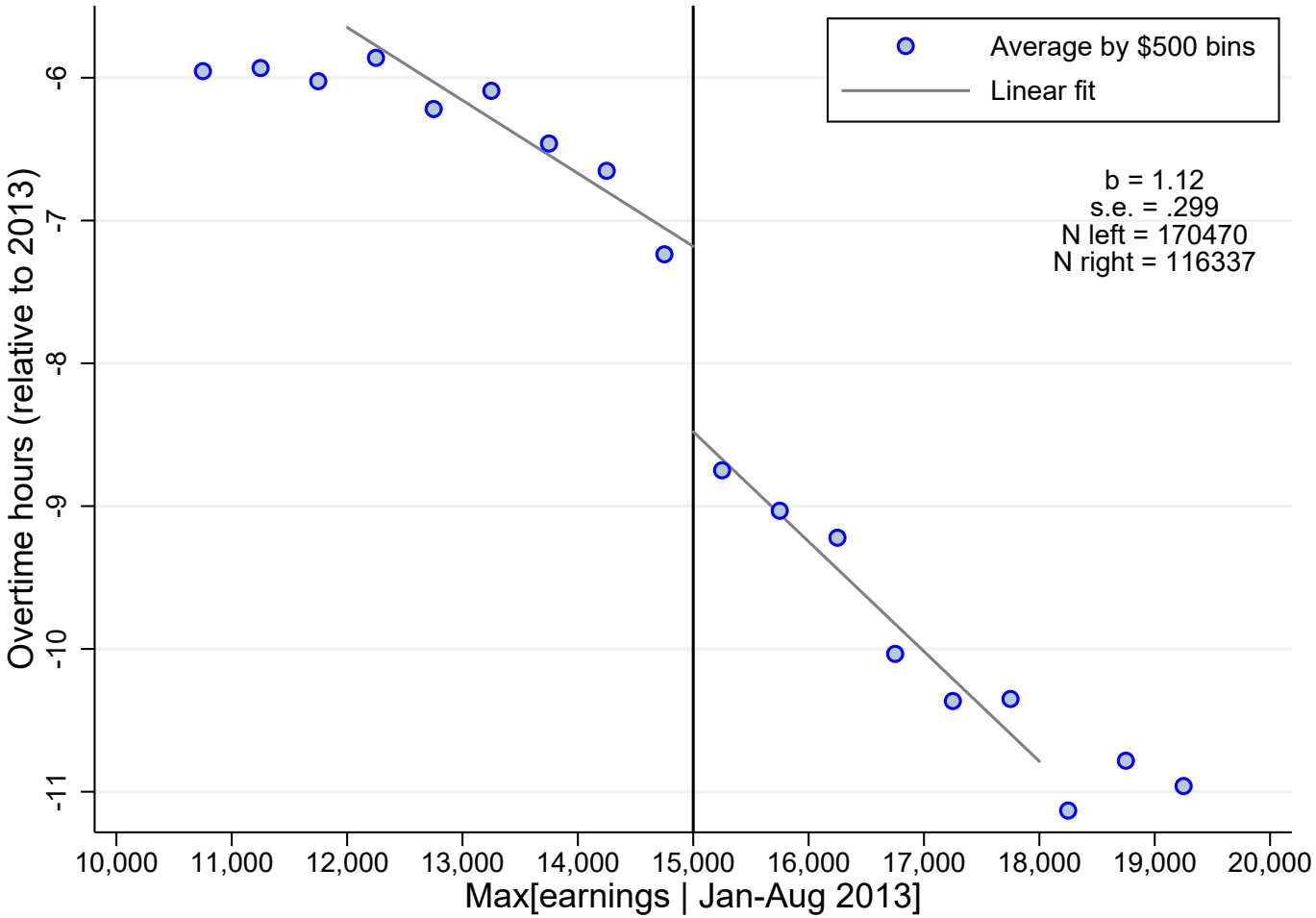
Overtime likelihood (extensive margin)



Note: RD analysis for the fraction of workers doing overtime. Averages by bins of the running variable (width AR$200).

Evolution RDs Descriptive stats

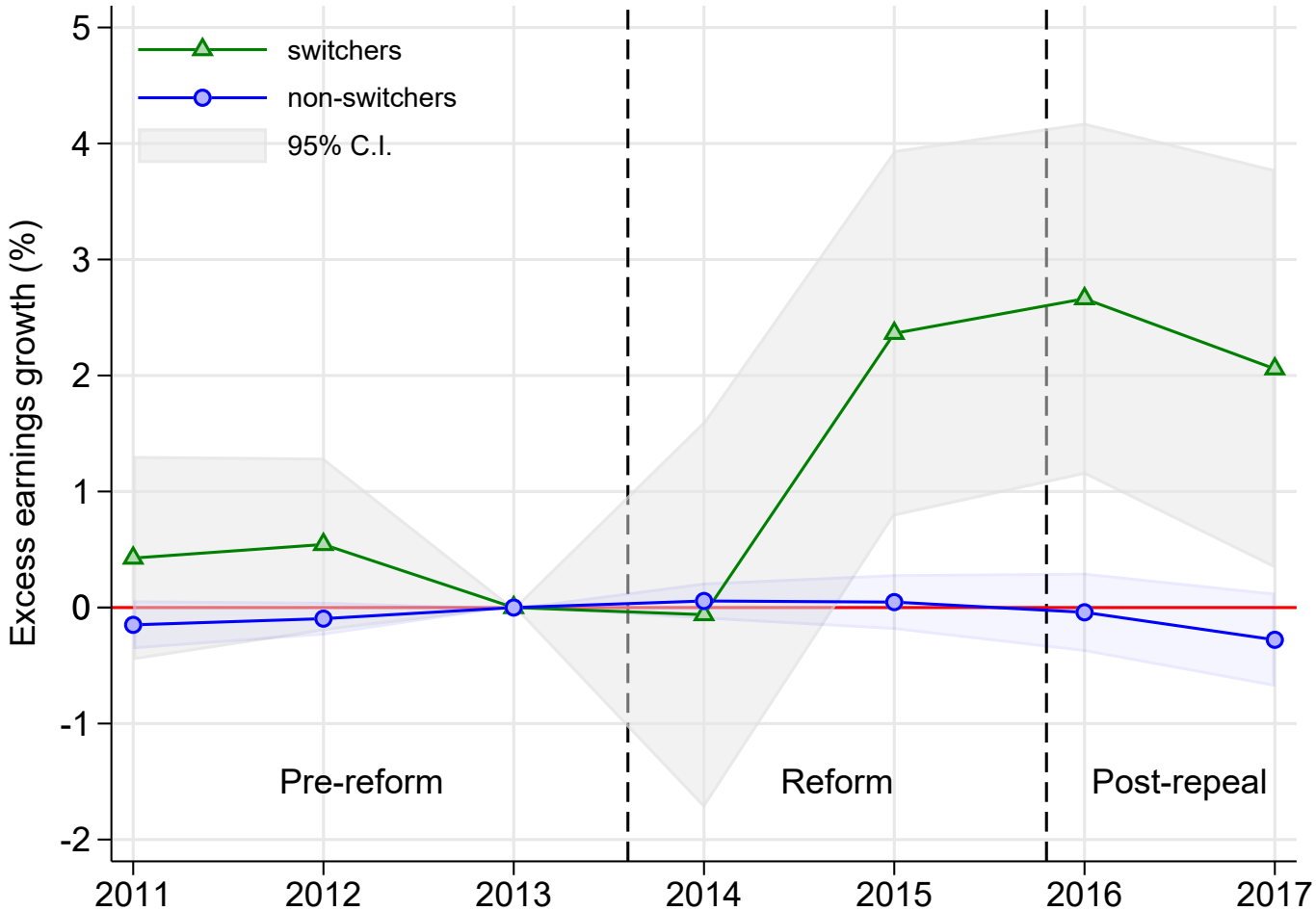
Overtime hours per month (Oct'15 vs Apr'13)



Note: RD estimate where the dependent variable is the absolute difference in overtime hours relative to Apr'13. Averages by bins of the running variable (width AR$500).

Evolution RDs

Switchers vs Non-switchers: RD estimates



Note: excess annual earnings growth for switchers (by 2015) and non-switchers relative to 2013.

Fraction switchers RD 2015

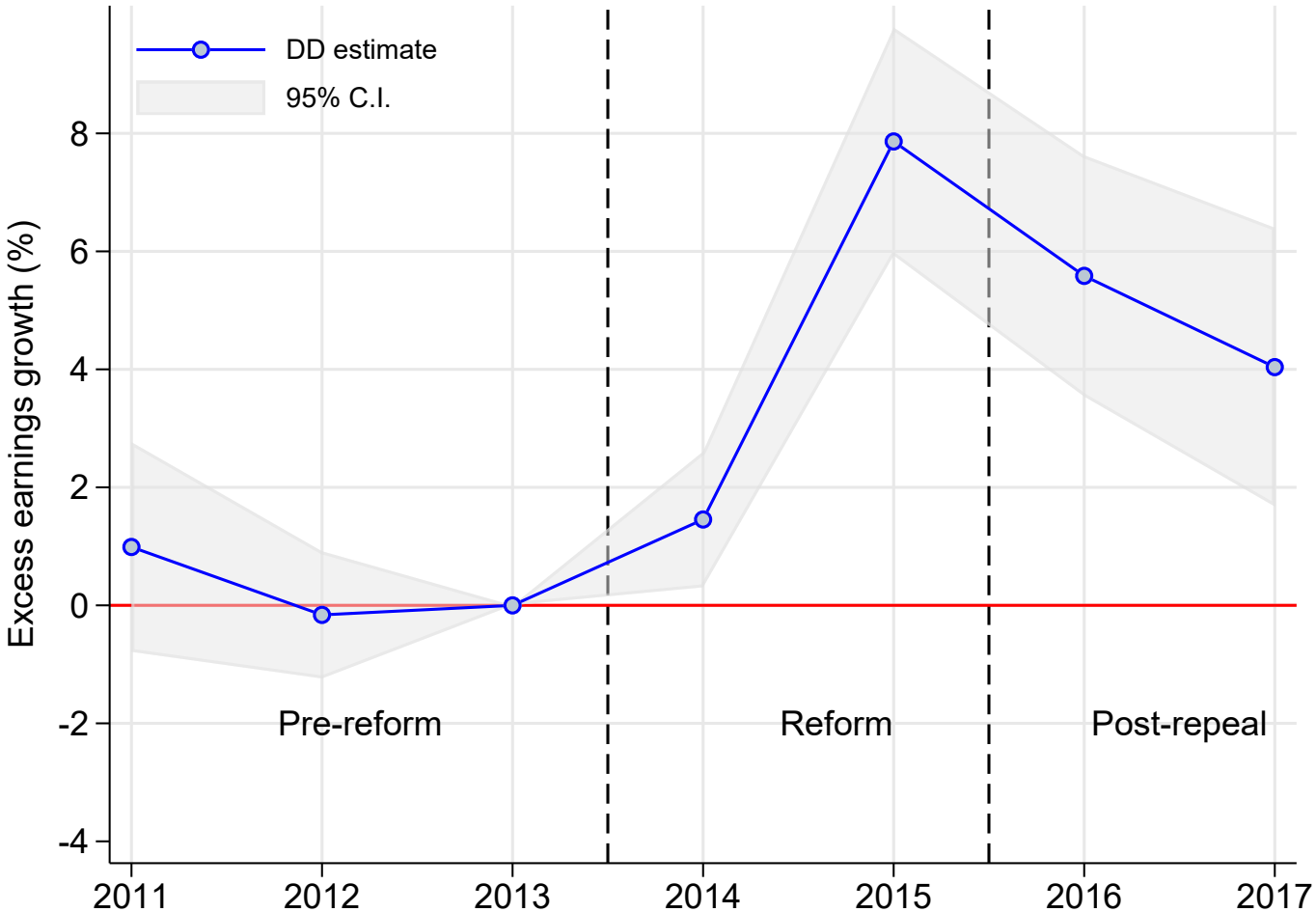
A peculiar group: managers/executives

- Compensation package ($\neq$ from typical workers' pay):
  1. **Base Salary** + **Bonuses** (SSC optional; higher personal exemptions)
  2. **Dividends** (10% tax); **Stock units** (15% tax on gains)
  3. **Honorarium** (cap: 25% of accounting profit or ar$12,500 pc)

- Favorable treatment of wage income in tax holiday zone <15k
  $\Longrightarrow$ incentives to shift to salary (income-tax free!)

- Real effort vs Avoidance vs Bargaining? [Piketty-Saez-Stantcheva '14]
  Avoidance seems more plausible (income relabeling)

Managers and Executives: earnings growth (DinD)



Note: this figure shows the excess earnings of T vs C group relative to 2013.

T: $(10k, 15k]$; **C**: $(15k, 25k]$; **Depvar**: $(y_{i,t} - y_{i,2013})/y_{i,2013}$

Levels | Pr(employed) | Placebo: 15k-20k vs 20k-25k | RD graphs | Real? Leave-out means

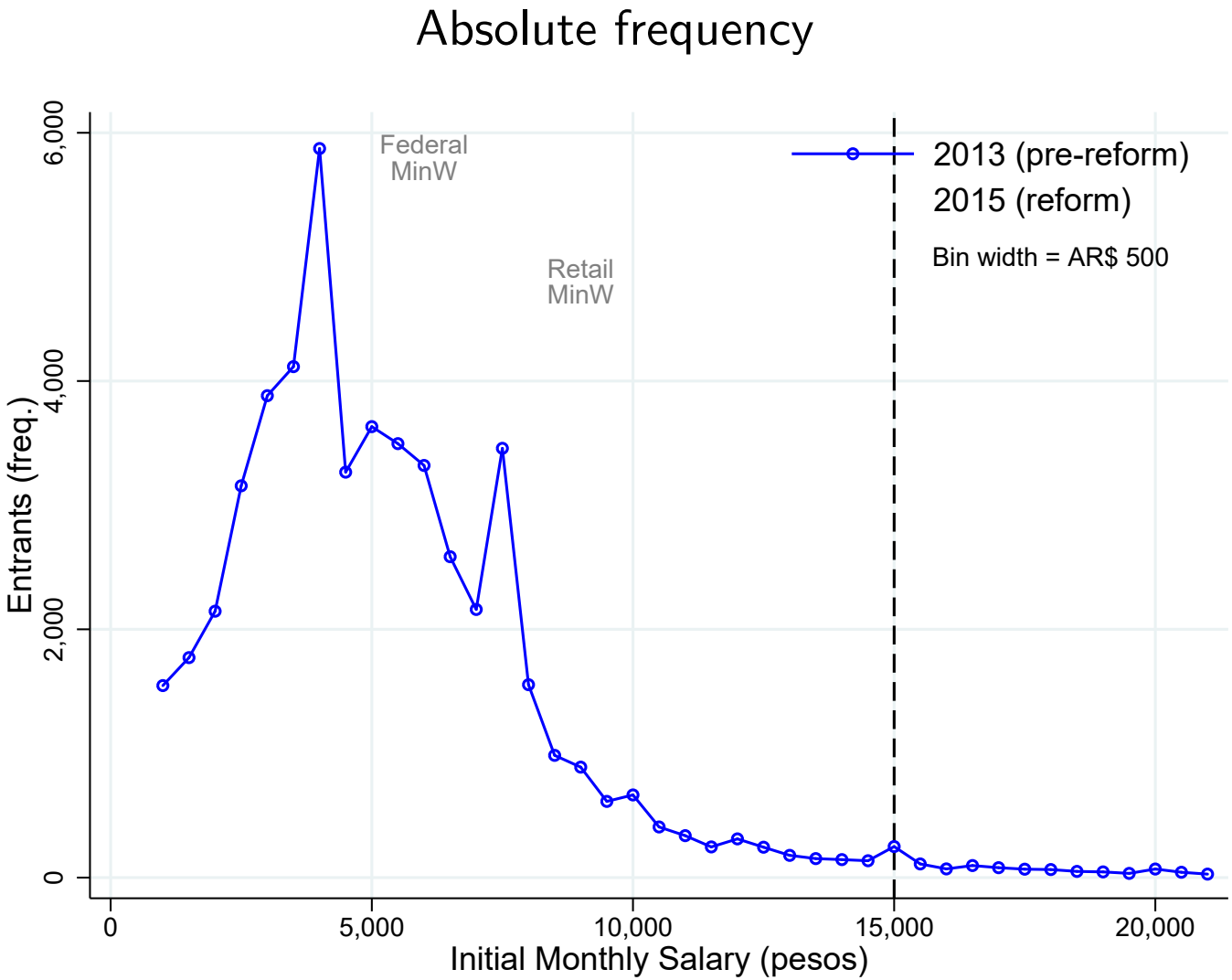
Regression results (2015)

	Total (1)	**Overtime** (2)	**Switchers** (3)	**Managers** (4)
Panel A: reduced-form				
% Δy	0.41**	4.27***	2.36***	7.86***
	(0.19)	(1.14)	(0.805)	(0.985)
Panel B: first-stage				
% $\Delta[1-\tau]$	24.7***	23.1***	24.6***	25.2***
	(0.04)	(0.06)	(0.14)	(0.28)
Panel C: (A)/(B)				
Elasticity e	**0.017****	**0.184****	**0.096****	**0.311****
	(0.008)	(0.049)	(0.033)	(0.041)
Observations	466,721	200,939	53,637	7,802

Note: $e = \frac{\%\Delta y}{\%\Delta[1-\tau]}$ computed with a fuzzy RD at 15k. Standard errors reported in parentheses. Dependent variable: annual earnings growth relative to 2013 (Col 1, 3, 4), difference in overtime hours relative to 2013 (col 2). For overtime hours we scale the reduced-form by average overtime hours around 15k (25.5 hours per month) and apply the Delta Method.
*** significant at 1%, ** significant at 5%; * significant at 10%.

Outline

Distribution of monthly entry salary



Relative Freq. Placebo 1st and 2nd months Employment effects

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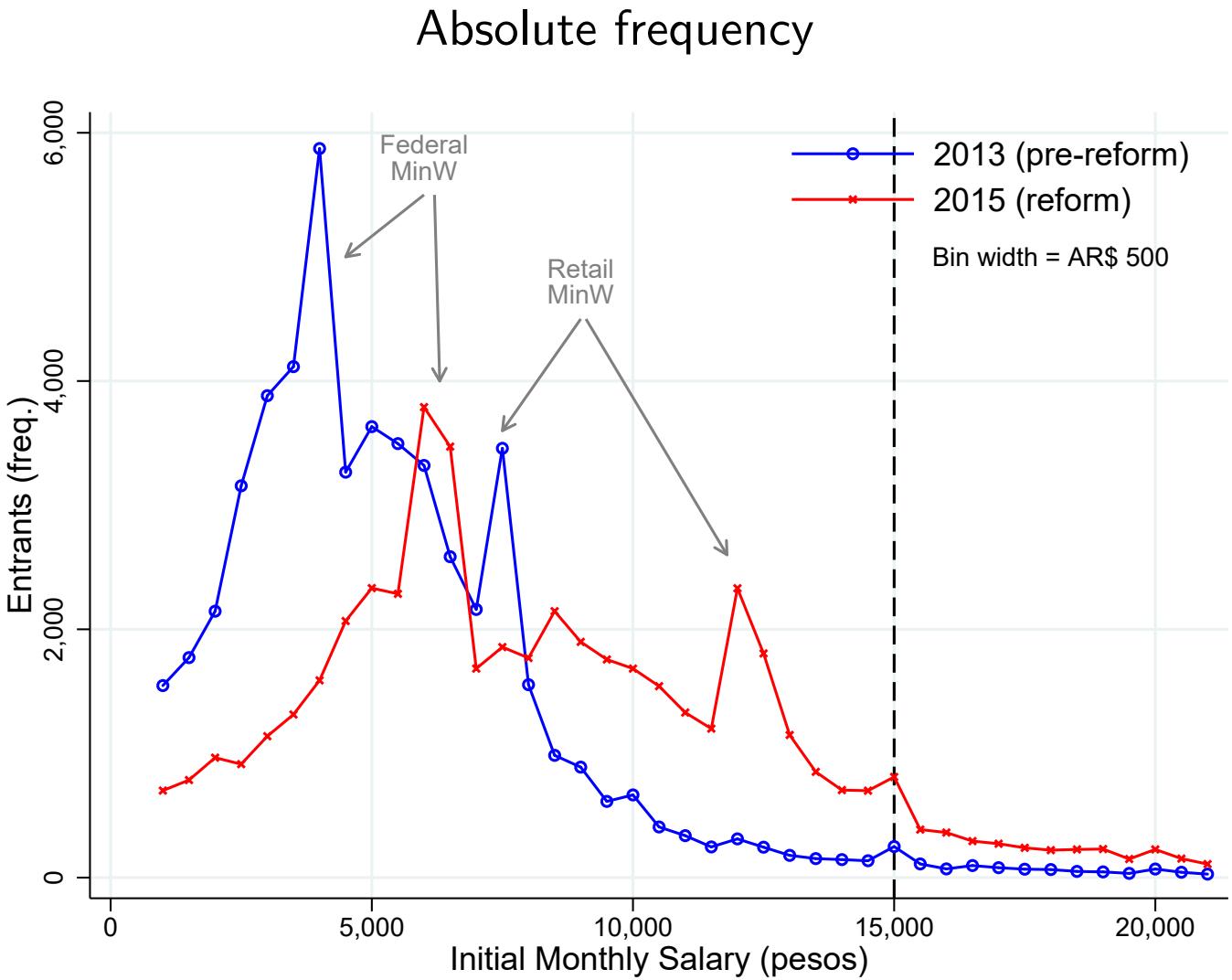
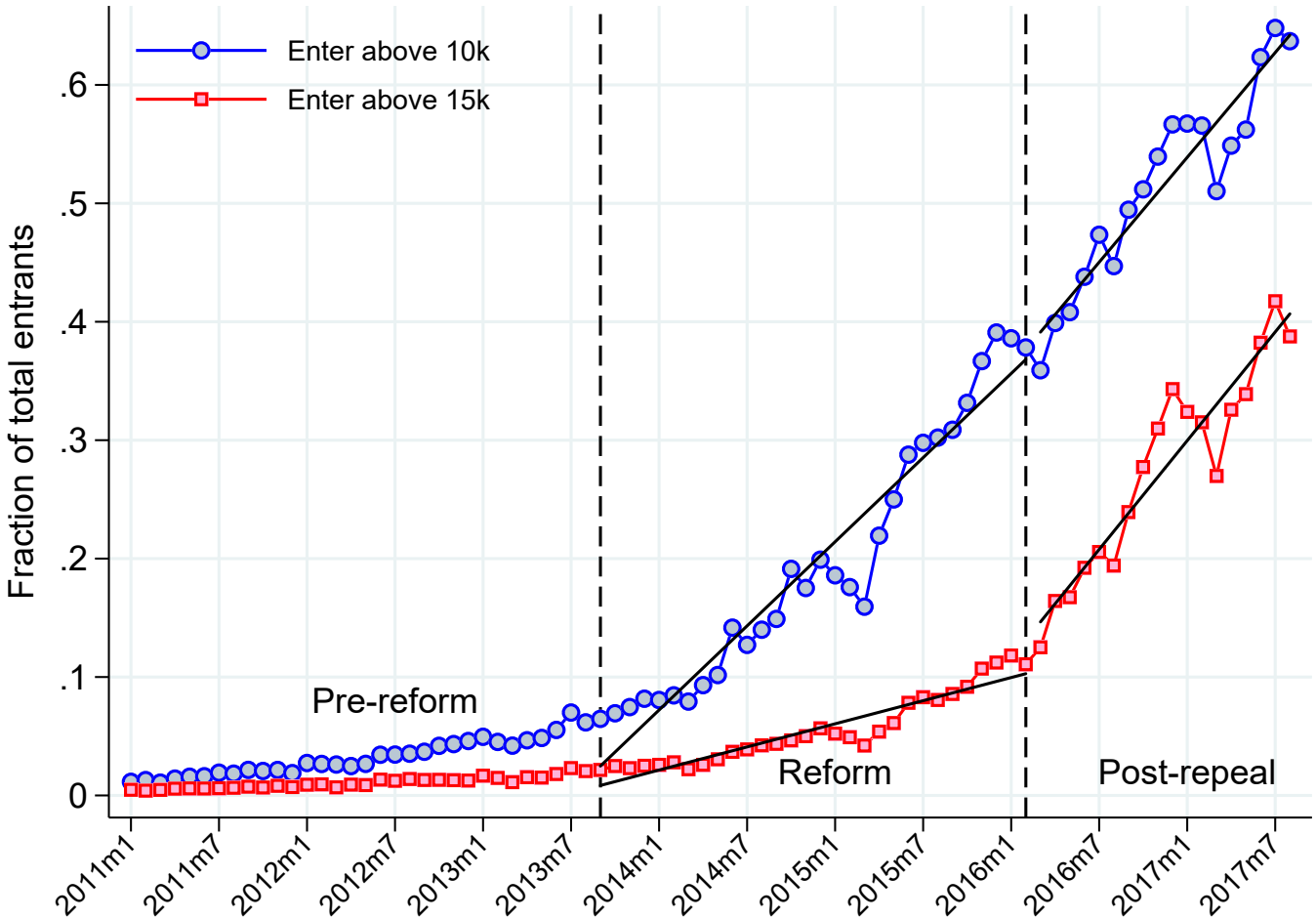


Relative Freq. Placebo 1st and 2nd months Employment effects

CDF analysis: all

Entering strategically below 15k in 2014 and 2015

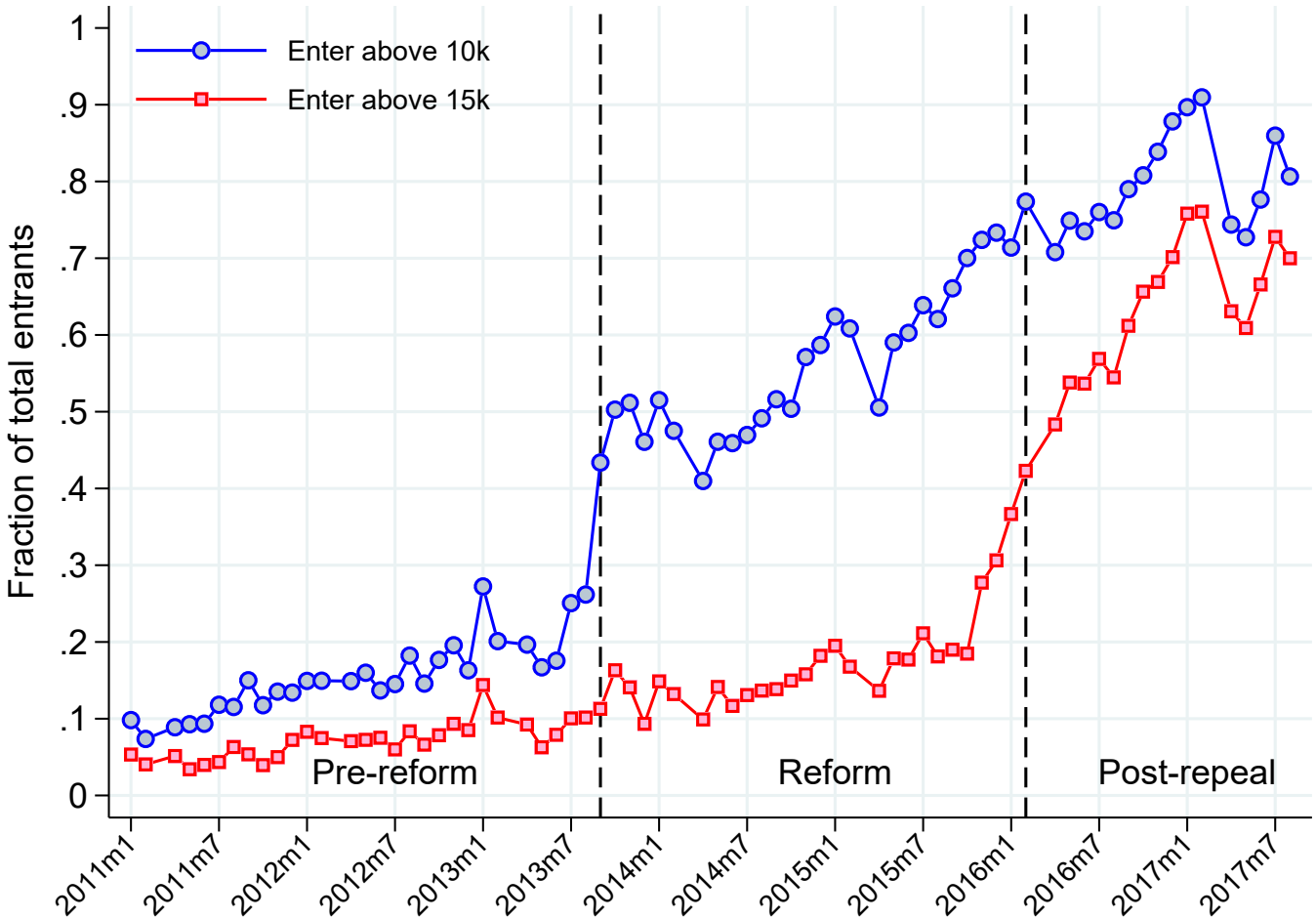
1-CDF(z): share of entrants with initial salary above 10k, 15k



CDF analysis: managers

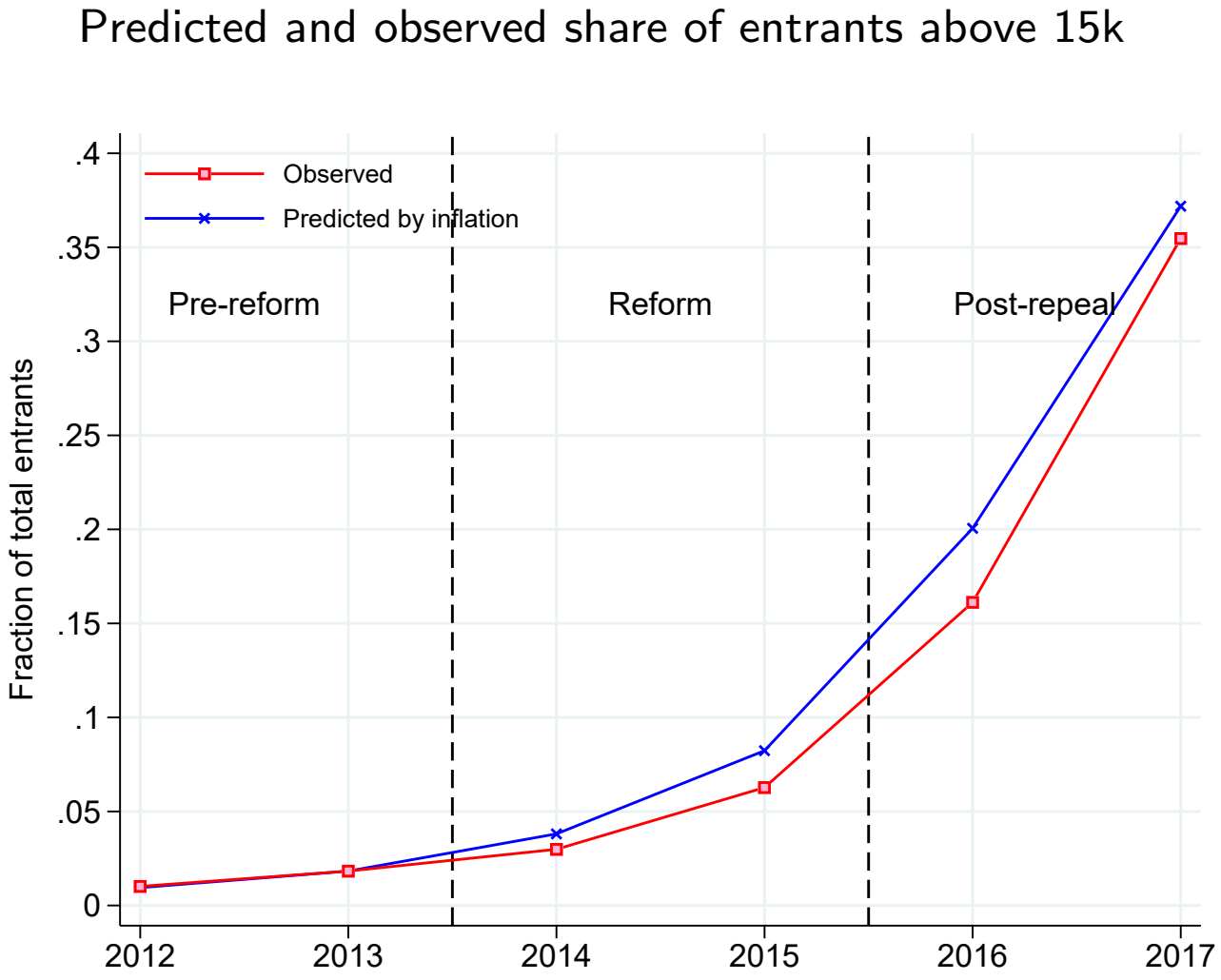
Immediate responses for managers and executives

1-CDF(z): share of entrants with initial monthly salary above 10k, 15k

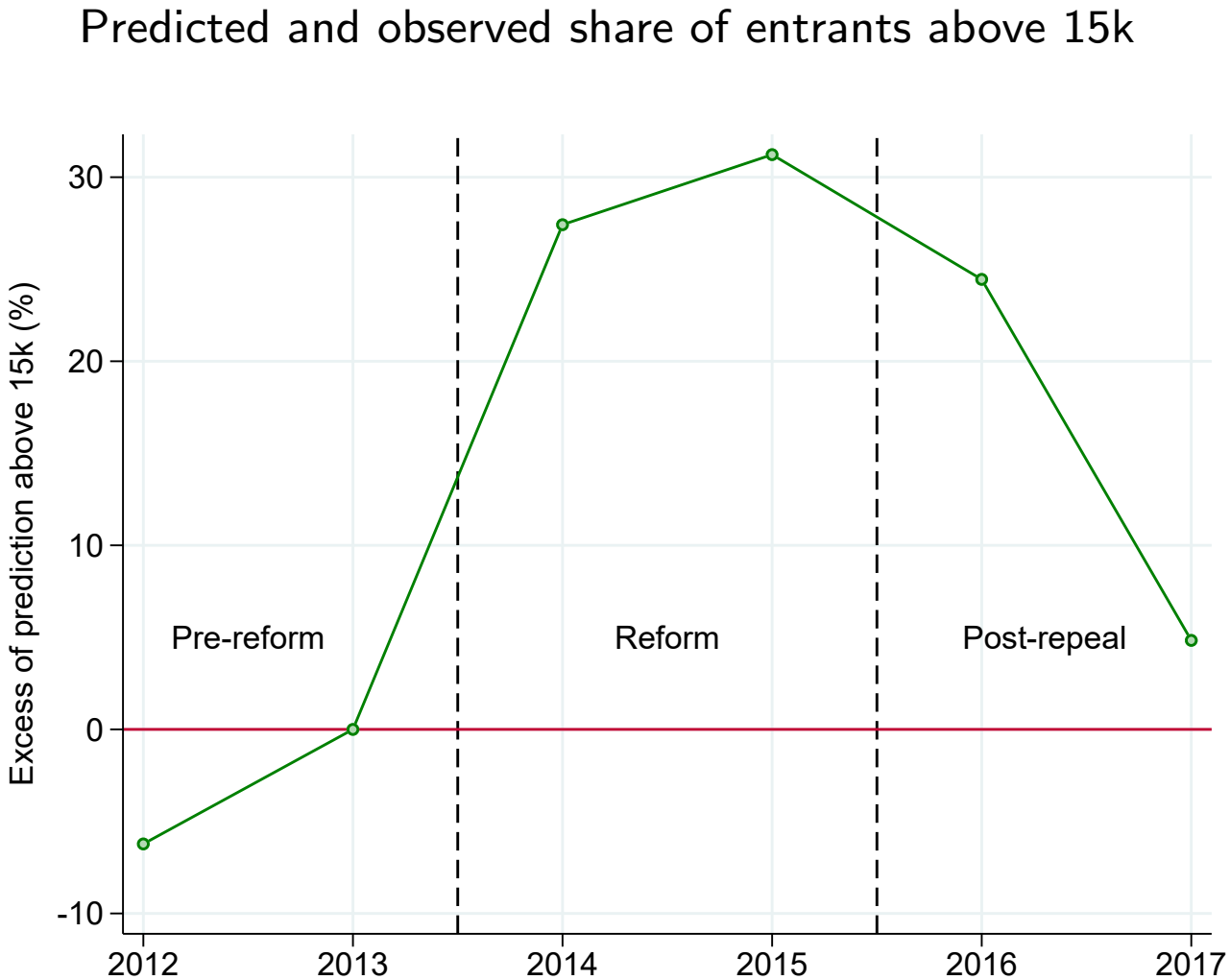


Focal points

Inflation to predict the CDF



Inflation to predict the CDF



Competing explanations for near-null result

1. **Lack of saliency?** Ans: UNLIKELY
2. **Poor enforcement/compliance?** Ans: UNLIKELY
3. **Incidence (labor demand) channel?** $\uparrow h$ but $\downarrow w$. Ans: UNLIKELY
4. **Subst. and Income effects cancel out?** Age groups. Ans: UNLIKELY
5. **Labor demand constraints? Labor market rigidities?** Ans: possibly
   - overtime hours (more discretion)
   - job switchers (new contract)
   - managers/executives (closer to the board of directors)
   - new entrants (easier to coordinate)
6. **Low structural elasticity?** (social norms) Own survey forthcoming

Rigidities: cross-country evidence

Outline

Conclusion

- **Would cutting income taxes temporarily to 0% unleash a huge labor supply response of upper-wage earners?** Not really (e = 0.02)
  - Striking given the saliency and size of the tax change
  - In line with Swiss paper, but not Icelandic papers
  - Not exactly Frisch (bc of income effects), but zero intertemporal response
- More action in cases where: less constrained by labor demand; or it's easier to game the system/advantageous for employers

  Evidence consistent with rigidities in the labor market
- It seems workers can't respond to taxes just by themselves

  It takes two (or more) to *tango*...

Extensions

- **Survey:** to shed more light on the low responses. We will contact workers below and above 15k by e-mail
- **General equilibrium effects**: collapse data at the zip-code level. Aggregate L and W vs. exposure to the tax cut (á la Zidar JPE'19)
- **Income vs Substit. effects:** pure income effect for **(i)** workers >20k (same MTR, higher ATR); **(ii)** spouse of beneficiary (cross-income effect)
- **Zoom in on occupations**: are more "flexible" occupations responsive? Can characterize "flexibility" using monthly hours from 2013
- **Financial consequences of tax changes**: Δ monthly outstanding debt and credit score for workers around the cutoff (*spin-off paper*)

Many thanks!

Outline

Income tax: space for instant responses

Back

2nd most important tax after the VAT (37% vs 41.5% tax revenue in 2015)
Borne by high-earning workers (∼top 15-30%) Paying taxes in Arg

- **Personal income tax (PIT):**
  - individually based
  - large exemption floor (varies by # of dependents)
  - progressive: 7 brackets and MTRs ranging from 9% to 35%
  - parameters not indexed for inflation
- **Cumulative Withholding Method:** Example
  - monthly withholding at source by employers (PAYE system like U.K.)
  - allows for instant responses to taxation ($\neq$ IRS percentage method)
  - enforcement: active role of accountants

A context of high inflation + no indexation

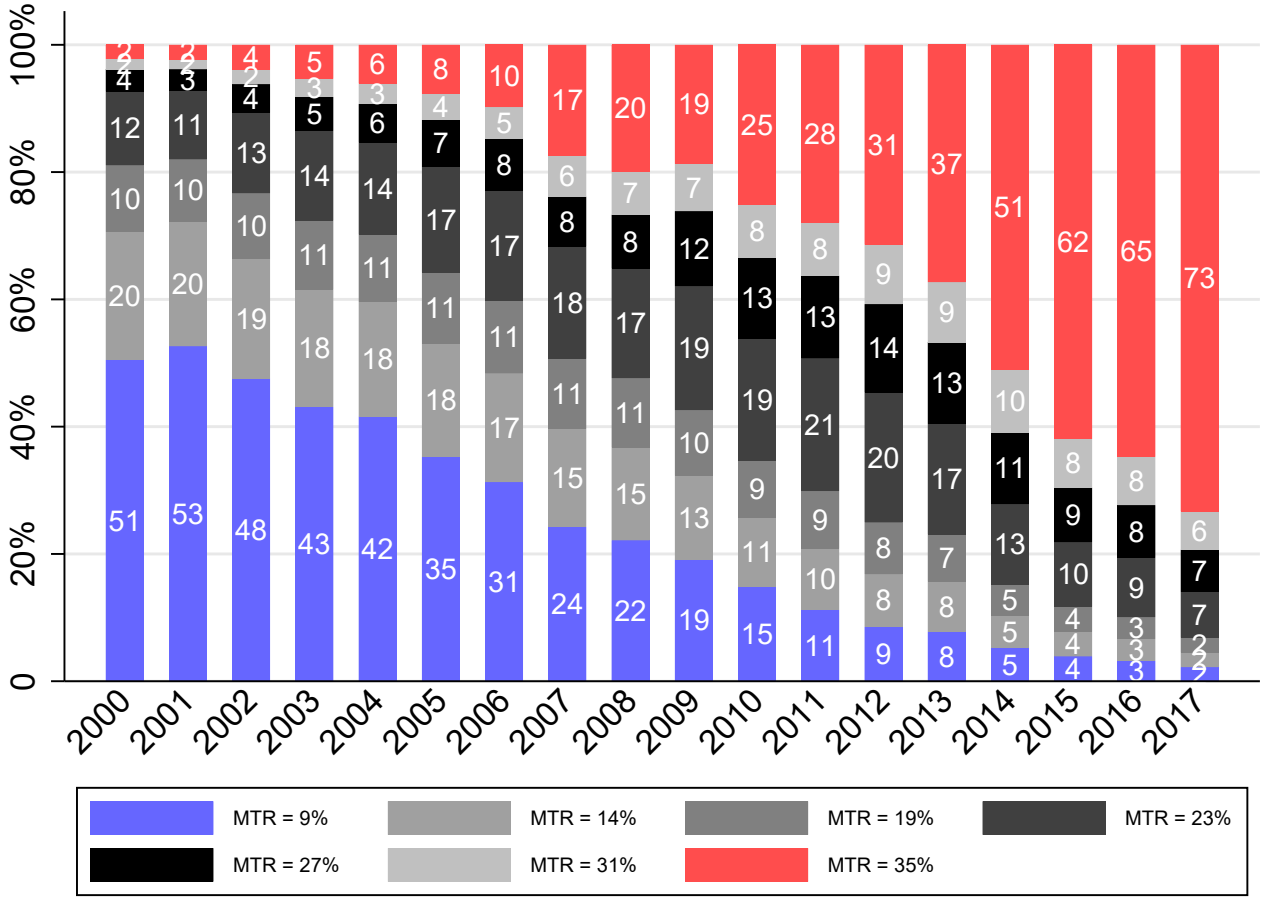
Back

A tax break as an immediate relief

Details and Facts

Bracket Creep: share of taxpayers by brackets 2000-2017

Counts



An immediate tax relief to high inflation and no indexation

A decade of "bracket creep": ↑ PIT ↓ progressivity

Δ income-tax in the last **17 years** driven by:

1. **Tax Schedule:** fixed in nominal terms btw 2000 and 2016 Schedule
2. **Exemptions:** partially adjusted, behind the increase of wages Exemptions
3. **Inflation:** high and persistent ($>$ 20% per year since 2007) Macro
4. **Monthly Wage:** adjusted 2$\times$ a year (tripartite negotiations)

1. + 2. + 3. + 4. $\Longrightarrow$ More taxpayers + Bracket Creep

$\Longrightarrow$ To alleviate this... **selective tax cut** in 2013

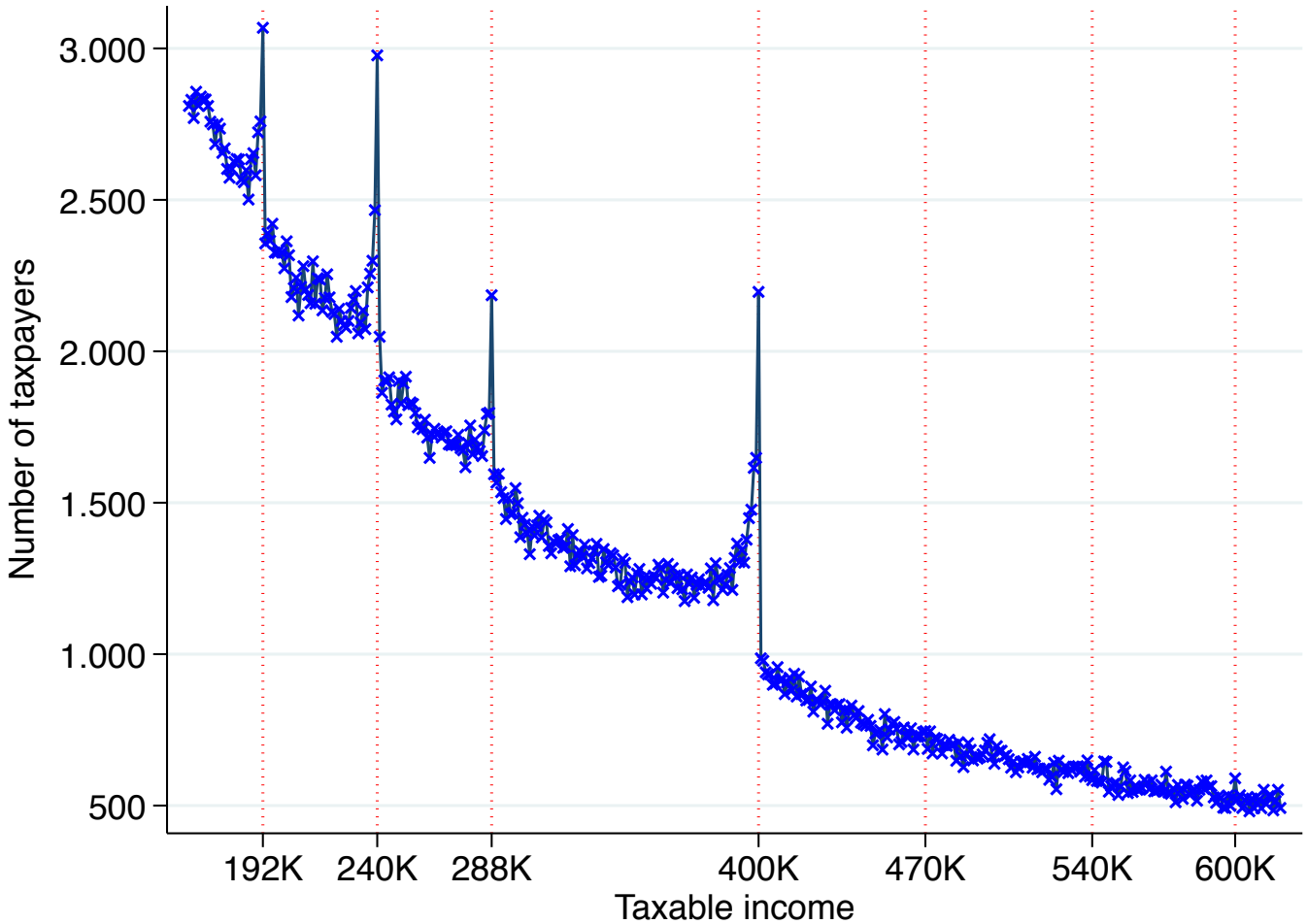
Political Economy of the Reform Expectations

Paying taxes in Argentina: 3 regimes Back

- **Wage/salary earner:**
  - SSC: employee (14% + 3% capped); employer (17-21% + 6%)
  - Income Tax: progressive with large exemption floor (EITC < floor) EITC
- **Monotributo (self-employed)**
  - Simplified regime: 11 notches (monthly fixed fee) Bunching
  - SSC, Income Tax, VAT, Health Insurance: covered by fee
- **Autonomous (self-employed)**
  - General regime: subject to VAT, progressive Income Tax
  - SSC: 5 categories with monthly fixed fee (no health coverage)

Bunching: self-employed workers

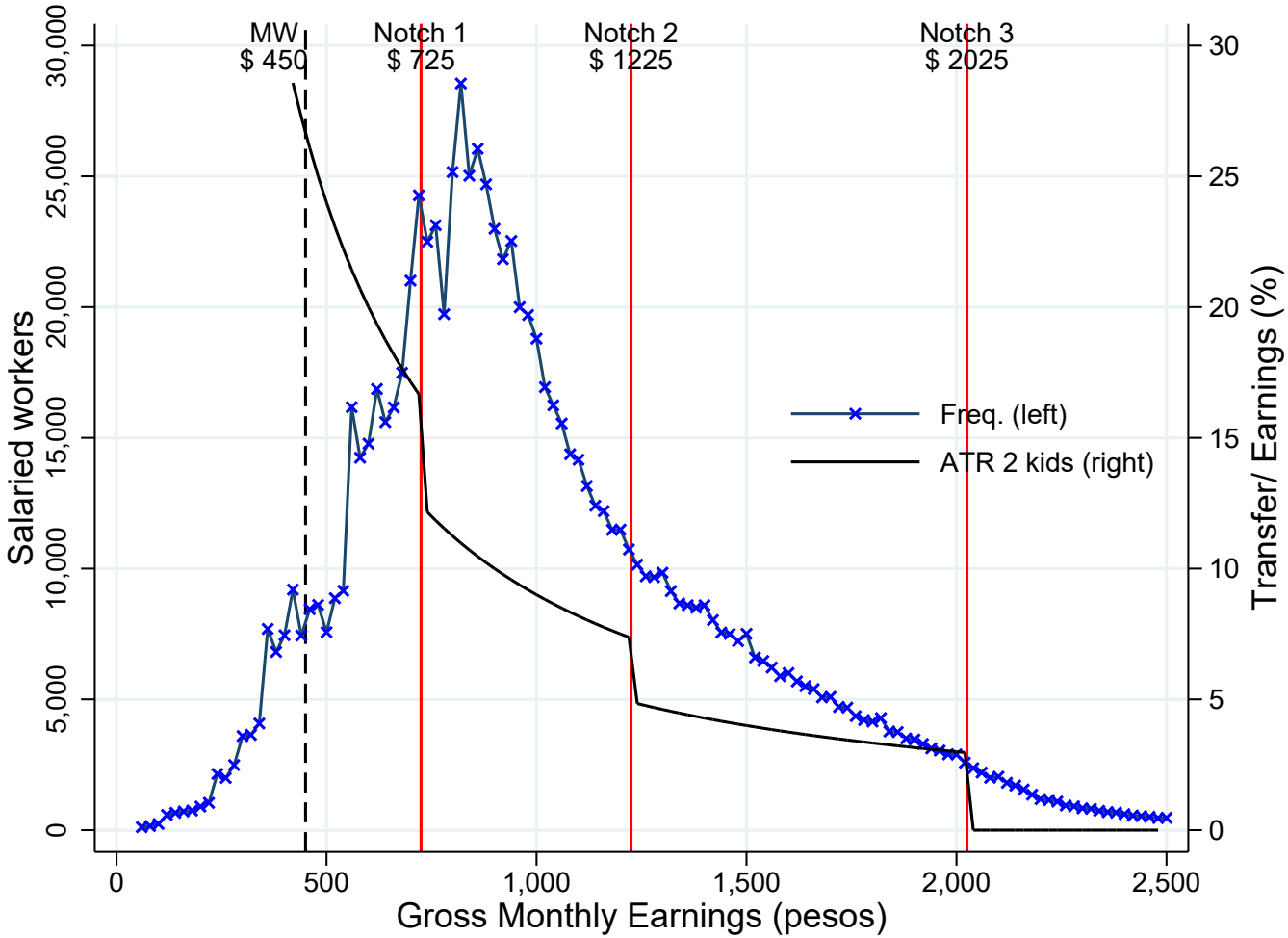
Back



Note: this figure shows bunching at different notches of the simplified regime for self-employed workers (Monotributo). Taken from Garriga, Puig, Tortarolo (2019).

No bunching: employees at family transfer eligibility notches

Back



Note: this figure shows absence of bunching at different thresholds of the Argentine family transfer schedule. It is like an EITC but with notches instead of kinks. Taken from Garriga and Tortarolo (2019).

Cumulative Withholding Method

Back

Based on cumulated earnings, cumulated deductions, and withholdings in the previous months. E.g., taxable income at month M is

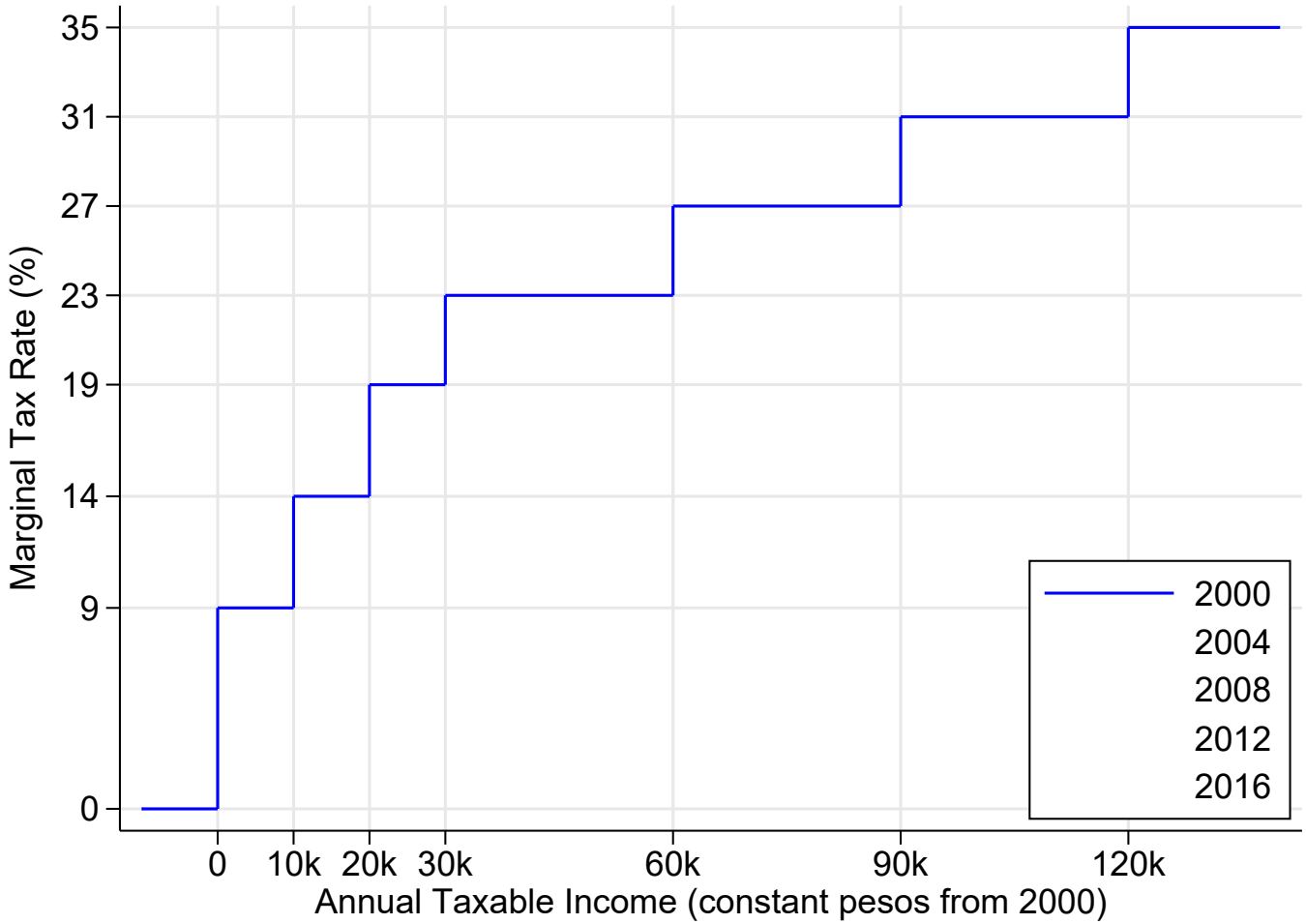
$$TI_{iM} = \sum_{t=1}^{M} z_{it} - \sum_{t=1}^{M} SSC_{it} - \frac{deductions}{12} \times M - \frac{exemptions}{12} \times M$$

$$Withholding_{iM} = Cumul\_tax_{iM} - Cumul\_tax_{iM-1}$$

Taxable Income at M		Cumulated tax at month M		
From AR$	To AR$	AR$	+	over AR$
0	833×M	0	9%	0
833×M	1,667×M	75×M	14%	833×M
1,667×M	2,500×M	191.67×M	19%	1,667×M
2,500×M	5,000×M	350×M	23%	2,500×M
5,000×M	7,500×M	925×M	27%	5,000×M
7,500×M	10,000×M	1600×M	31%	7,500×M
10,000×M		2375×M	35%	10,000×M

FACT 1: Inflation reduced the significance of taxable thresholds

Back



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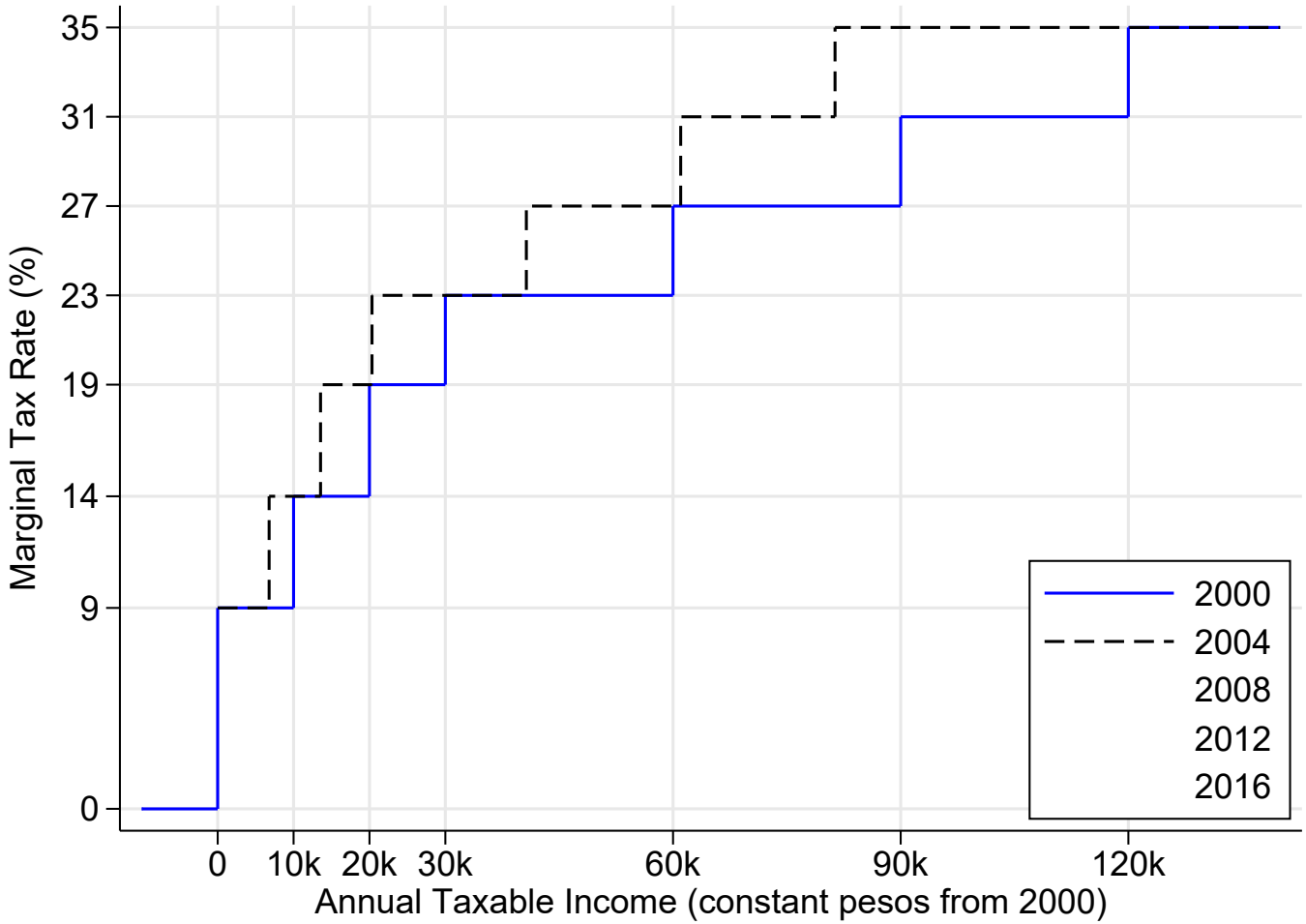

FACT 1: Inflation reduced the significance of taxable thresholds

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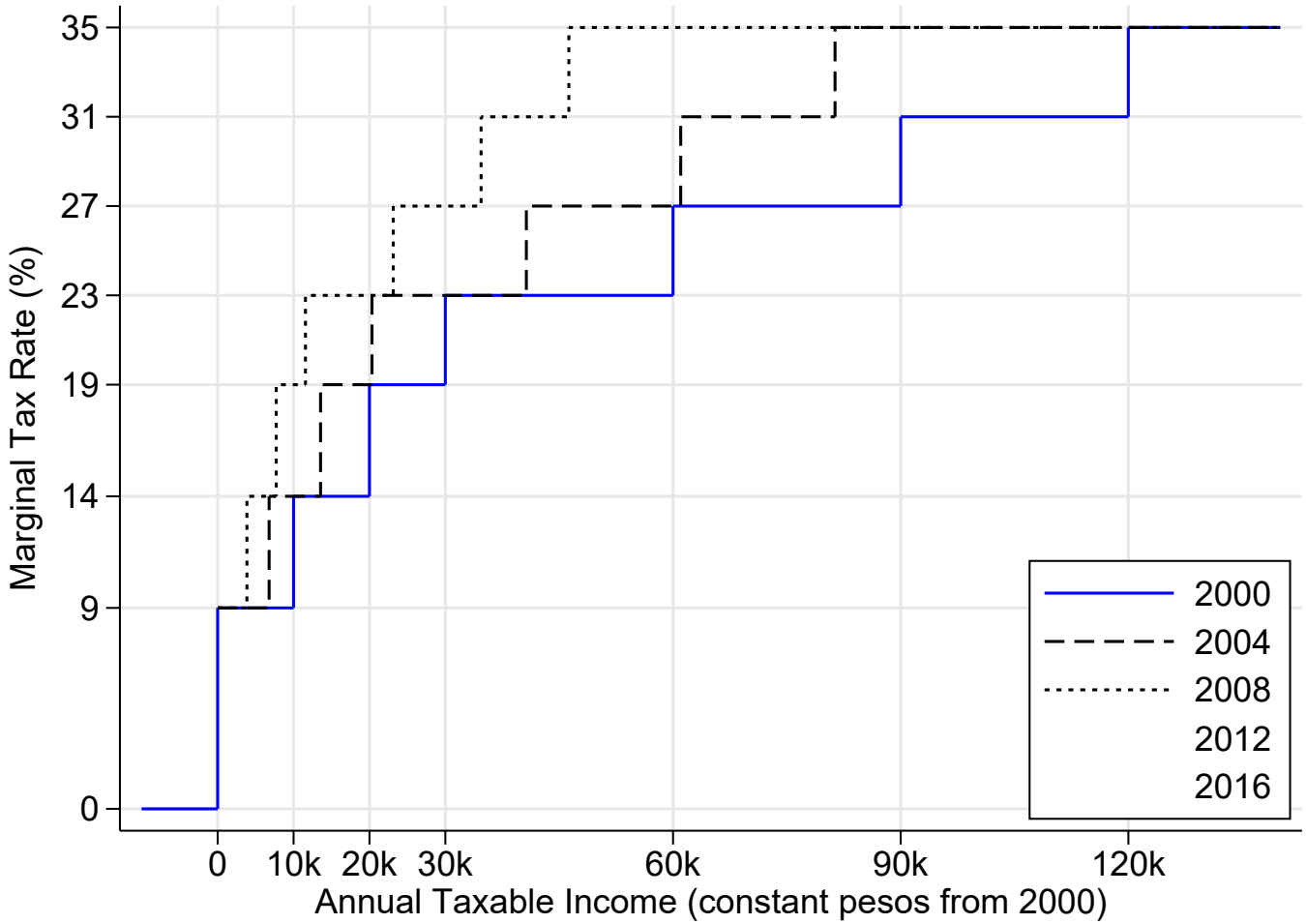

FACT 1: Inflation reduced the significance of taxable thresholds

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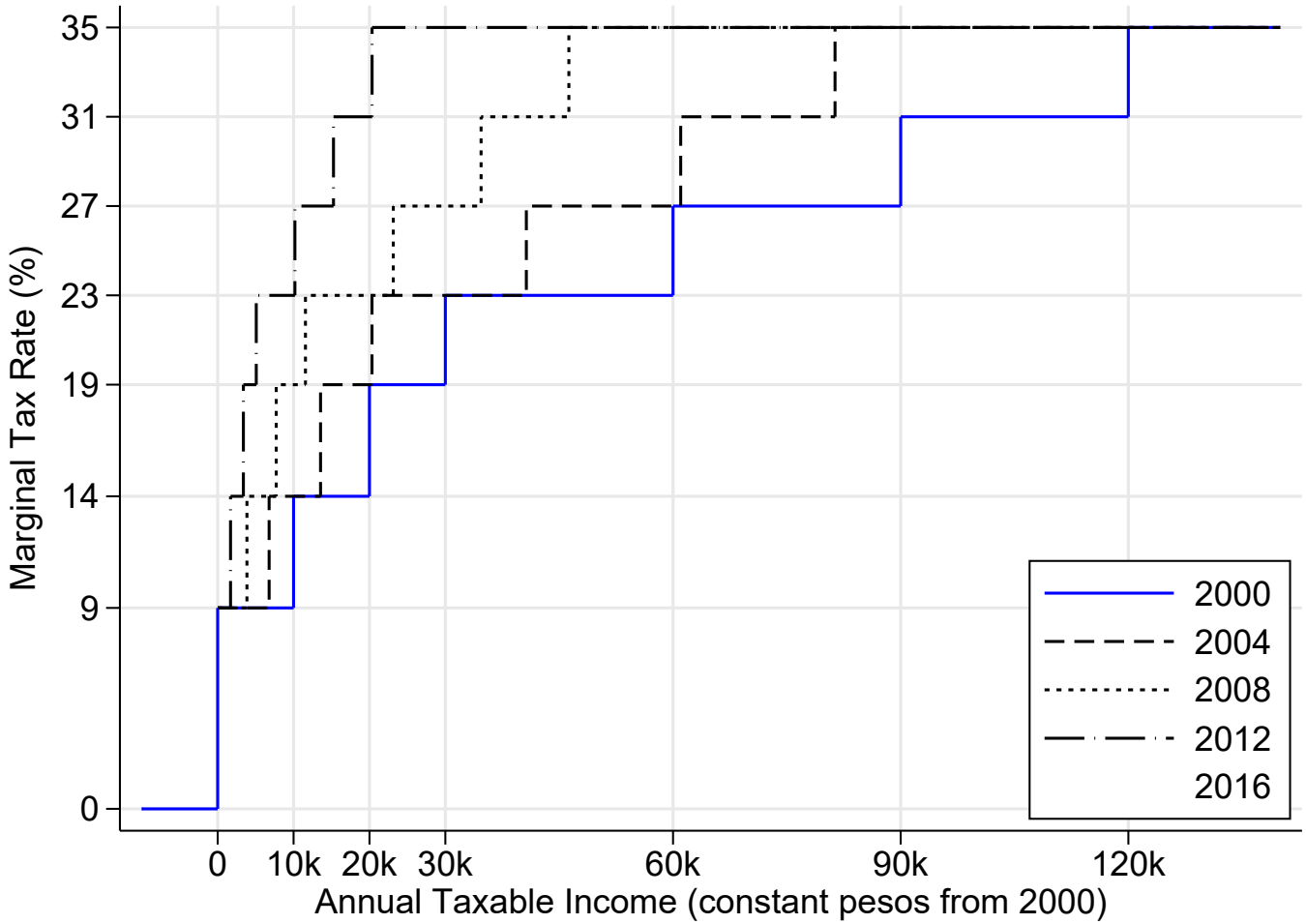

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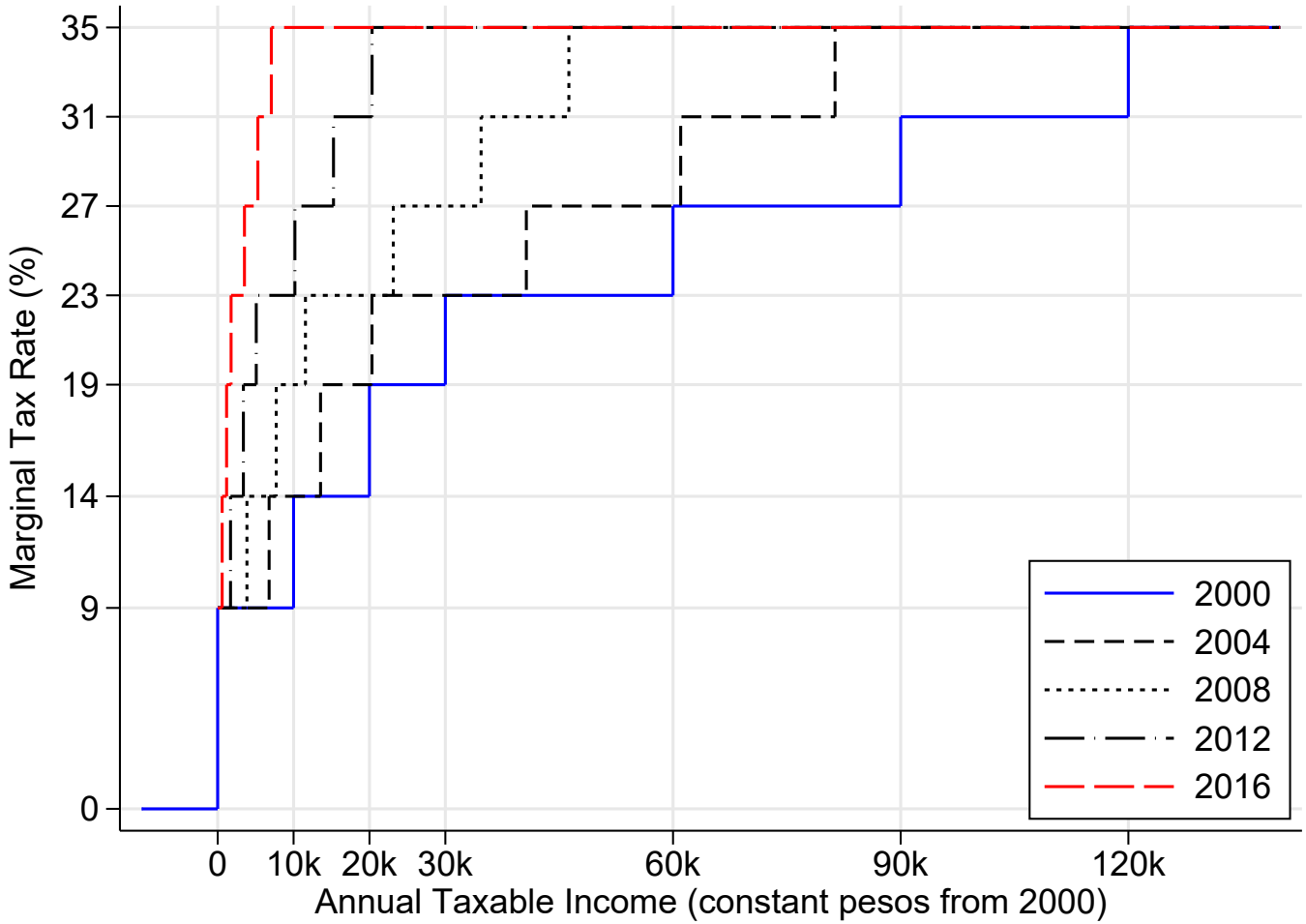
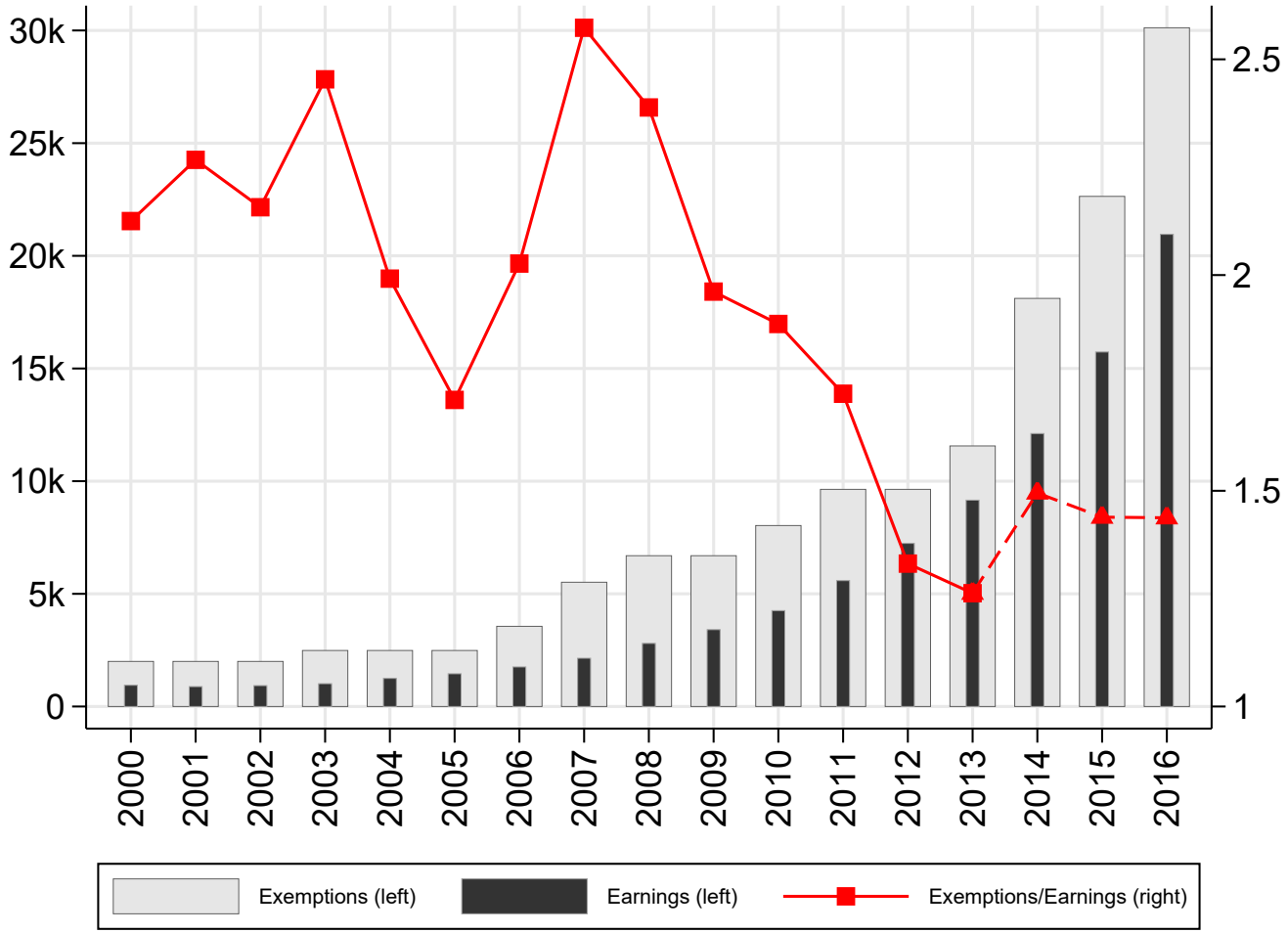
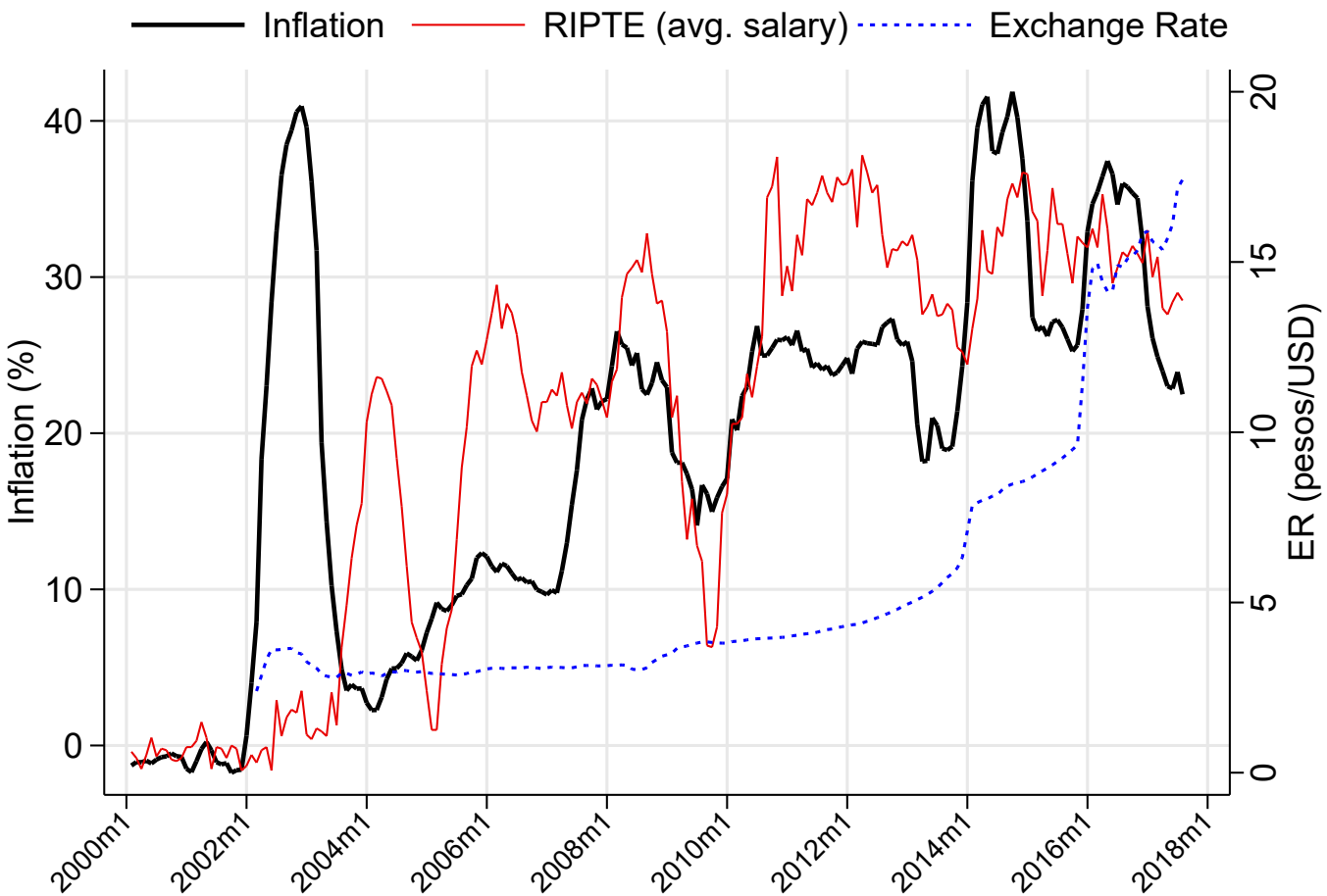


FACT 2: Exemption floor lost real significance

Back



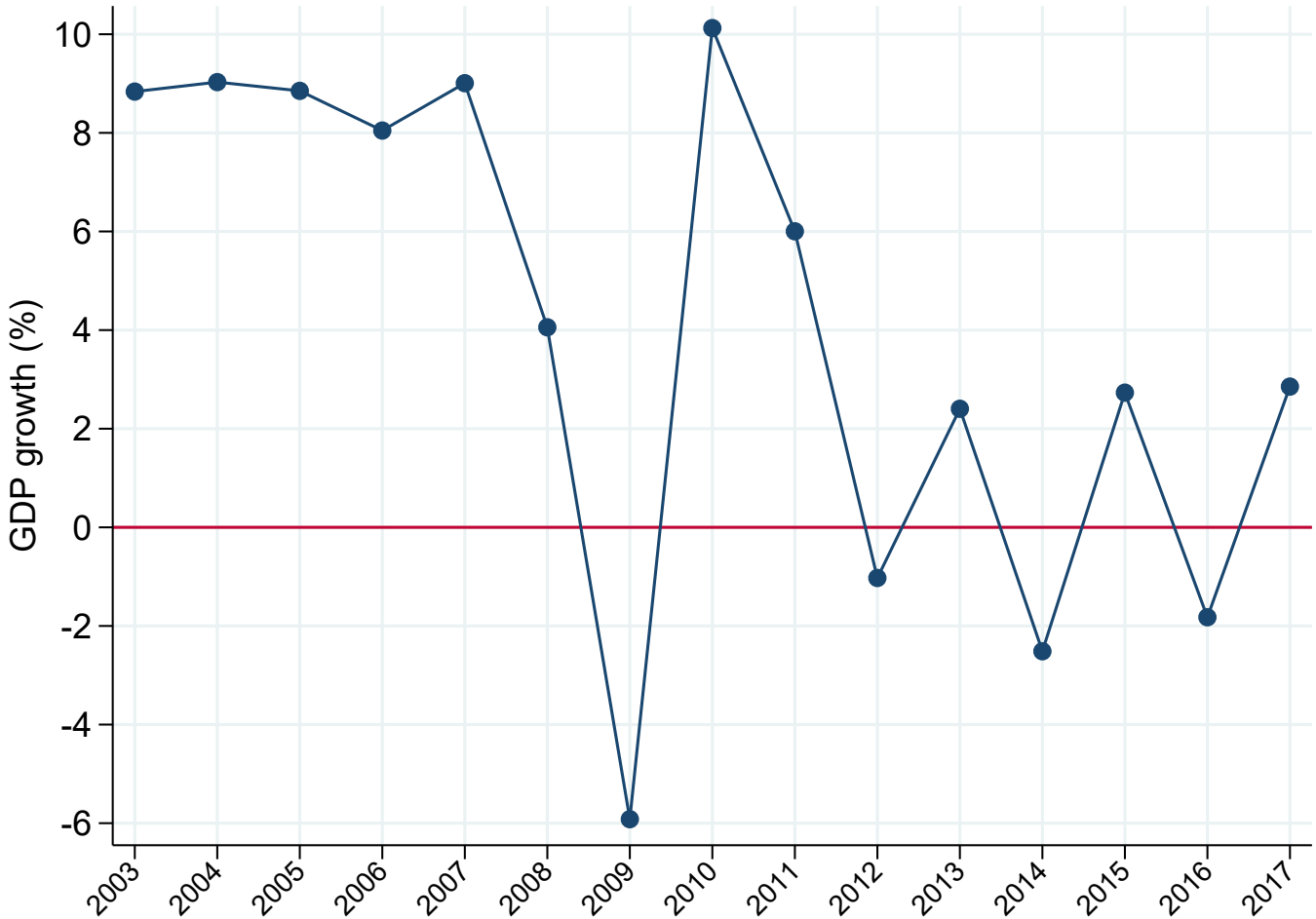
FACT 3 + FACT 4: Inflation (Prices and Salaries) Back



Source: Argentina's Inflation Series from The Billion Prices Project at MIT.
RIPTE (Remuneraciones Imponibles Promedio de los Trabajadores Estables), Minstry of Labor.

GDP growth in Argentina, 2003-2017

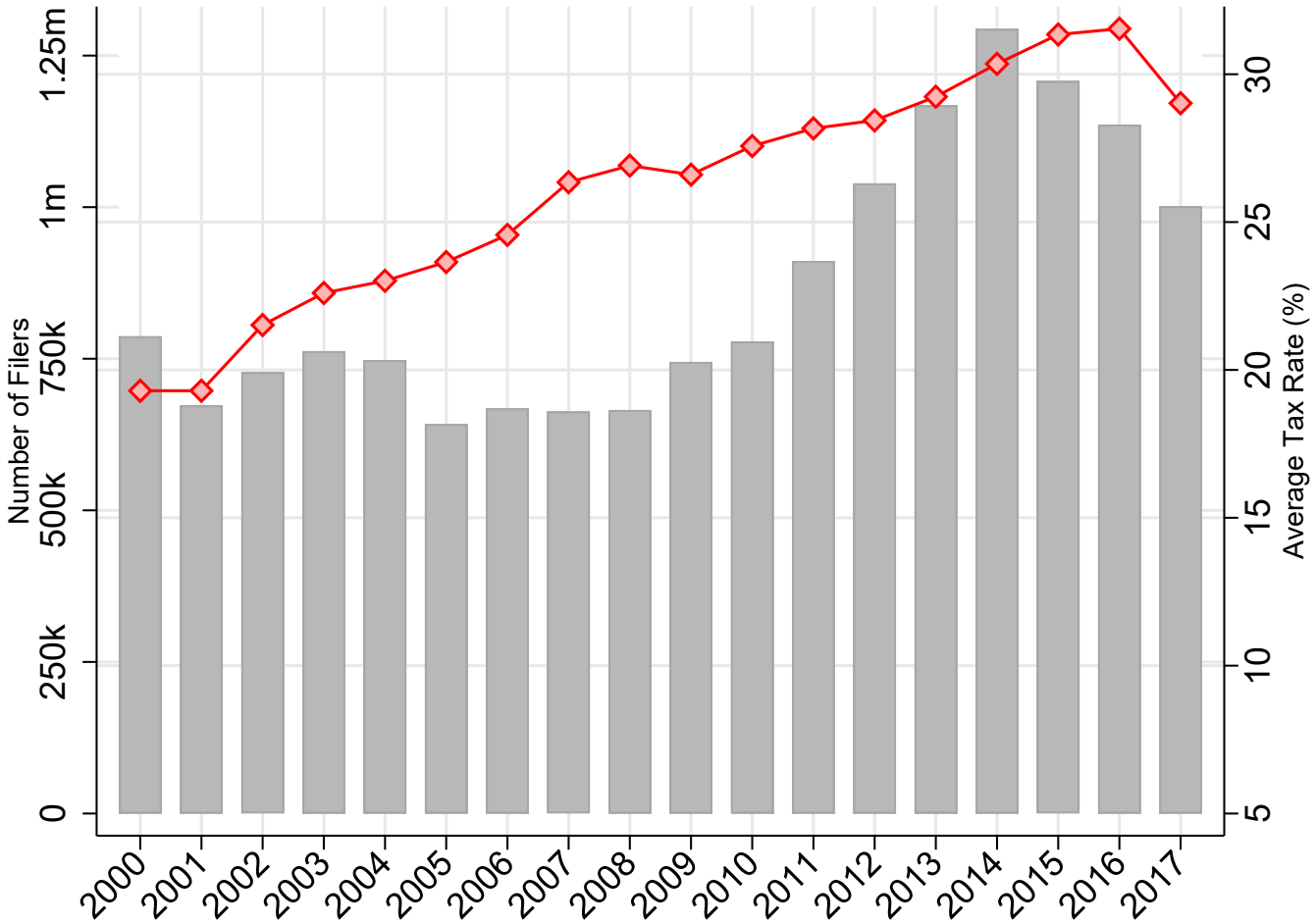
Back



Source: World Bank WDI.

FACTS 1-4: N taxpayers filing income tax returns, 2000-2016

Back



Source: Own elaboration based on statistical yearbooks of the national tax authority (AFIP). Note: They gray bars denotes the number of taxpayers and the red line denotes the average tax rate. AFIP does not include in these numbers withheld salaried workers since most of them are not required to file taxes at the end of the fiscal year.

Why? The political economy of the reform

Back

Official argument:

"*it is a permanent policy of the executive branch to implement countercyclical measures that strengthen the purchasing power of workers and their families and, with it, the consolidation of the demand and the domestic market*"

"*the implementation of these measures responds to strict justice and equity*" (Decree No. 1242/2013)[1]

Alternative interpretation:

After losing midterm primary elections on August 11th, 2013, the administration used the tax cut to improve the public image before the general legislative elections held on October 27th, 2013

Furthermore, labor unions representing upper wage earners were actively requesting an increase in the exemption floor

[1] *Fiscal impact of the tax cut: AR$4,500 million in 2013. Equivalent to 100% spending on Universal Child Allowance (AUH) in Sep-Dec 2013.*

Expectations: temporary vs permanent change

Expectation that it would last, at least, until 2016 Back

- Argentina had presidential elections in 2015
  So no reversion or big changes expected until 2016 ($\sim$ 2 years)
  If anything, they increased the generosity (marginally) in May 2015

- More generally, hard to believe that such ad-hoc reforms could become permanent (pay equity concerns)

- Nonetheless, top 3 candidates had similar proposals:

  - **Mauricio Macri** (centre-right): to eliminate the income tax
  - **Daniel Scioli** (centre-left): to limit it to wage earners above a (high) exemption threshold
  - **Sergio Massa** (dissident Peronist): to eliminate the tax

  Campaign

22/10/2015 - 05:04 | Clarin.com | Economía

A tres días de los comicios.

Promesa de Scioli: subir el piso de Ganancias a $ 25.000 y actualizarlo por inflación

Massa dice que directamente lo eliminaría. Y Macri que se lo devolvería a los que menos ganan.

Scioli en la redacción de Clarín. Junto a Alejandro Collia, Silvina Batakis, Alberto Pérez y Ricardo Casal.

El candidato del Frente para la Victoria Daniel Scioli anticipó hoy que de asumir la Presidencia, **elevará el mínimo no imponible del Impuesto a las Ganancias hasta los 25.000 pesos.** Y además, prometió impulsar una ley para que ese valor **se actualice automáticamente a la par de la inflación.** Sería un esquema similar al que se aplica semestralmente para las jubilaciones y para la Asignación Universal por Hijo.

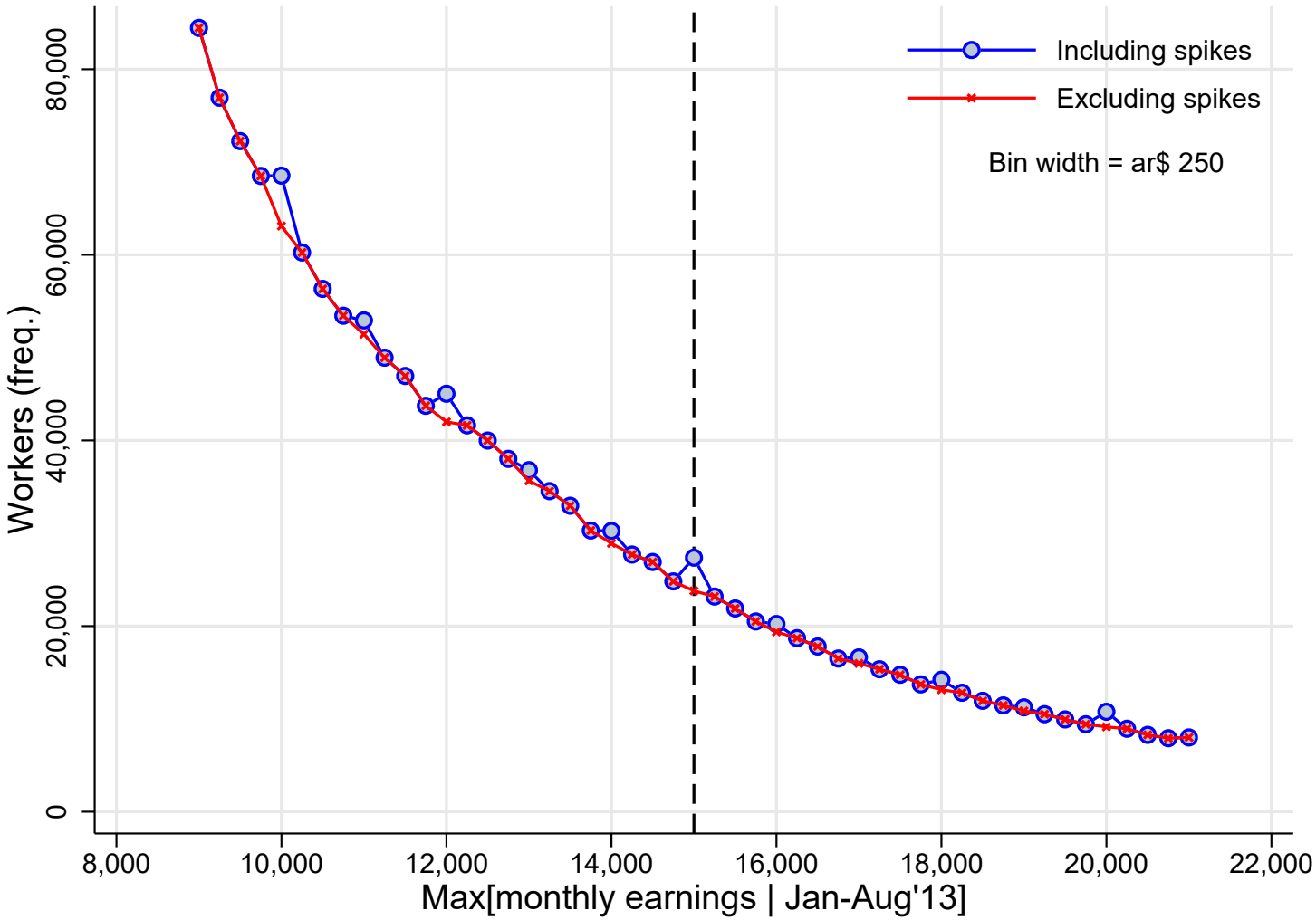
(e) Clarín: Oct 22, 2015

(f) YouTube: Sep 29, 2015

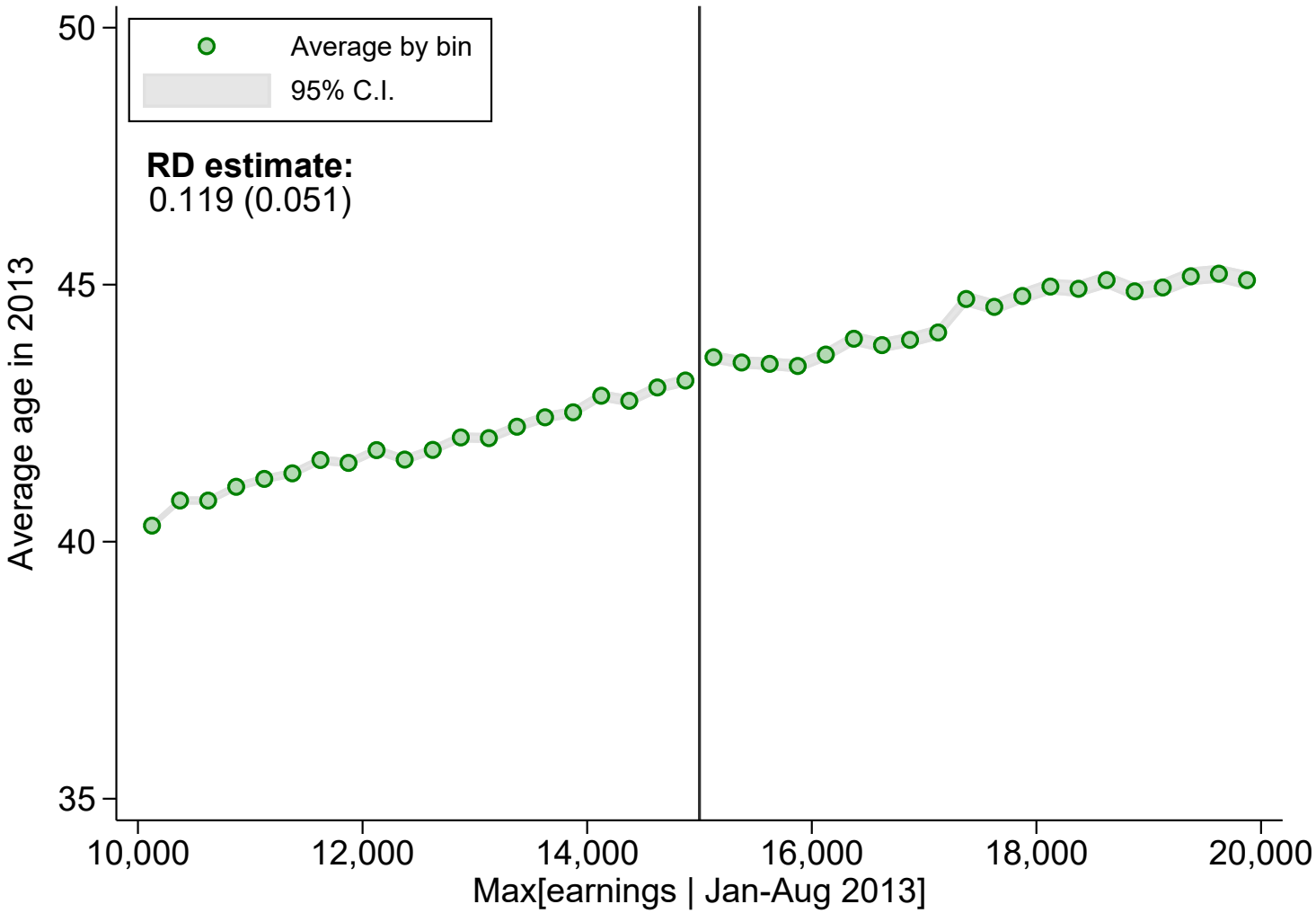
Back

Zoom density around 15k

BACK

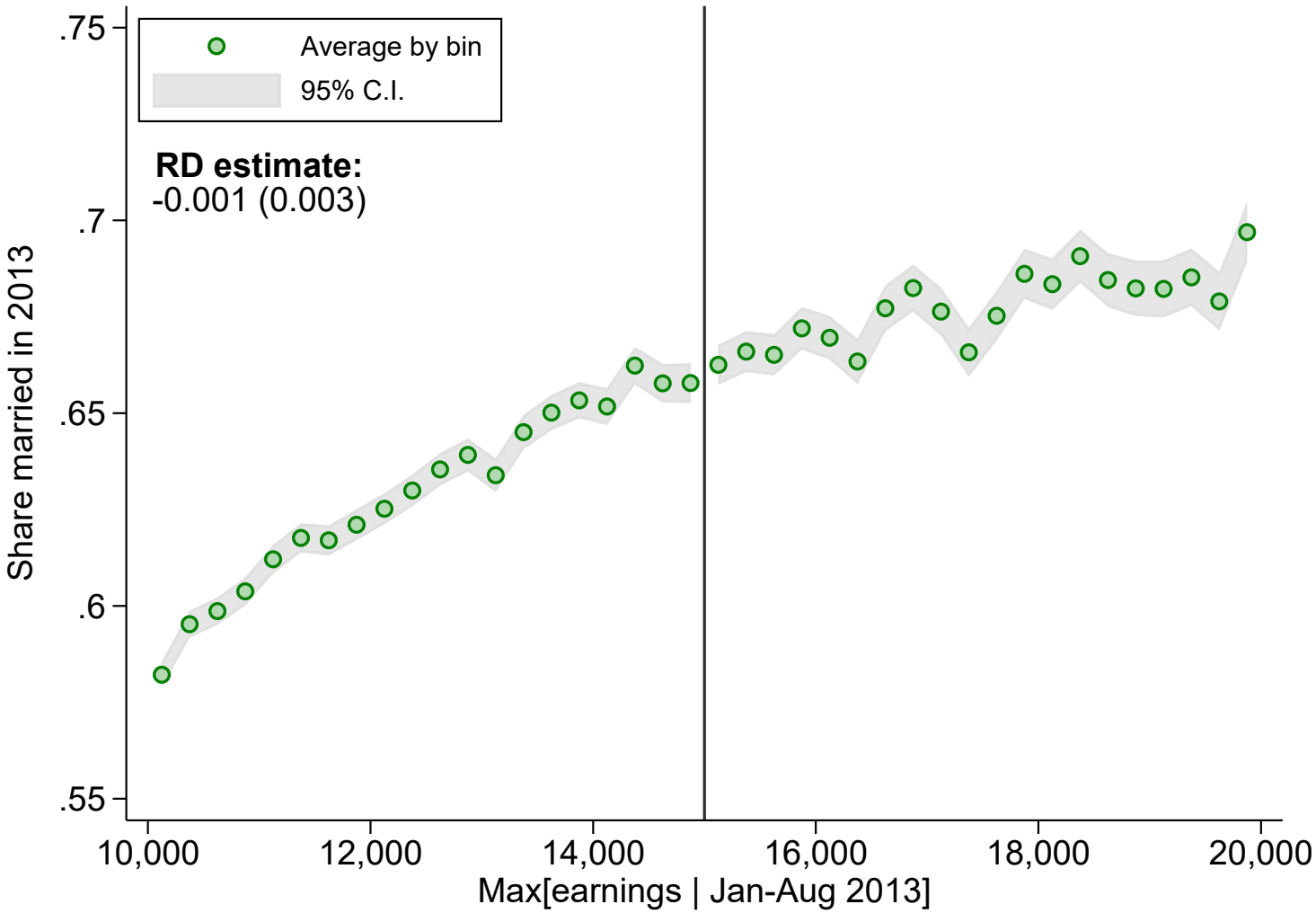


Covariate balance BACK



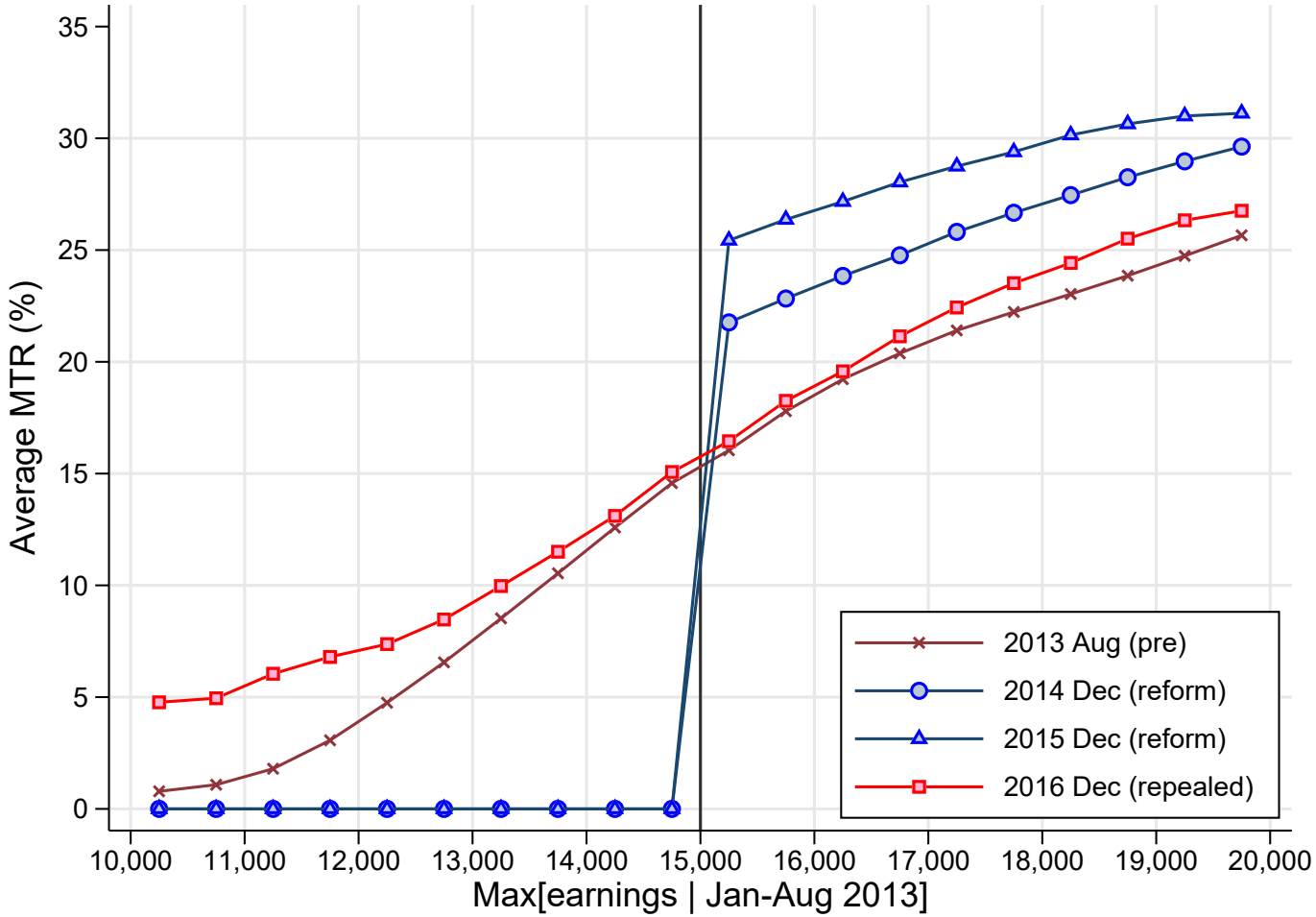
Covariate balance

BACK



Empirical first stage

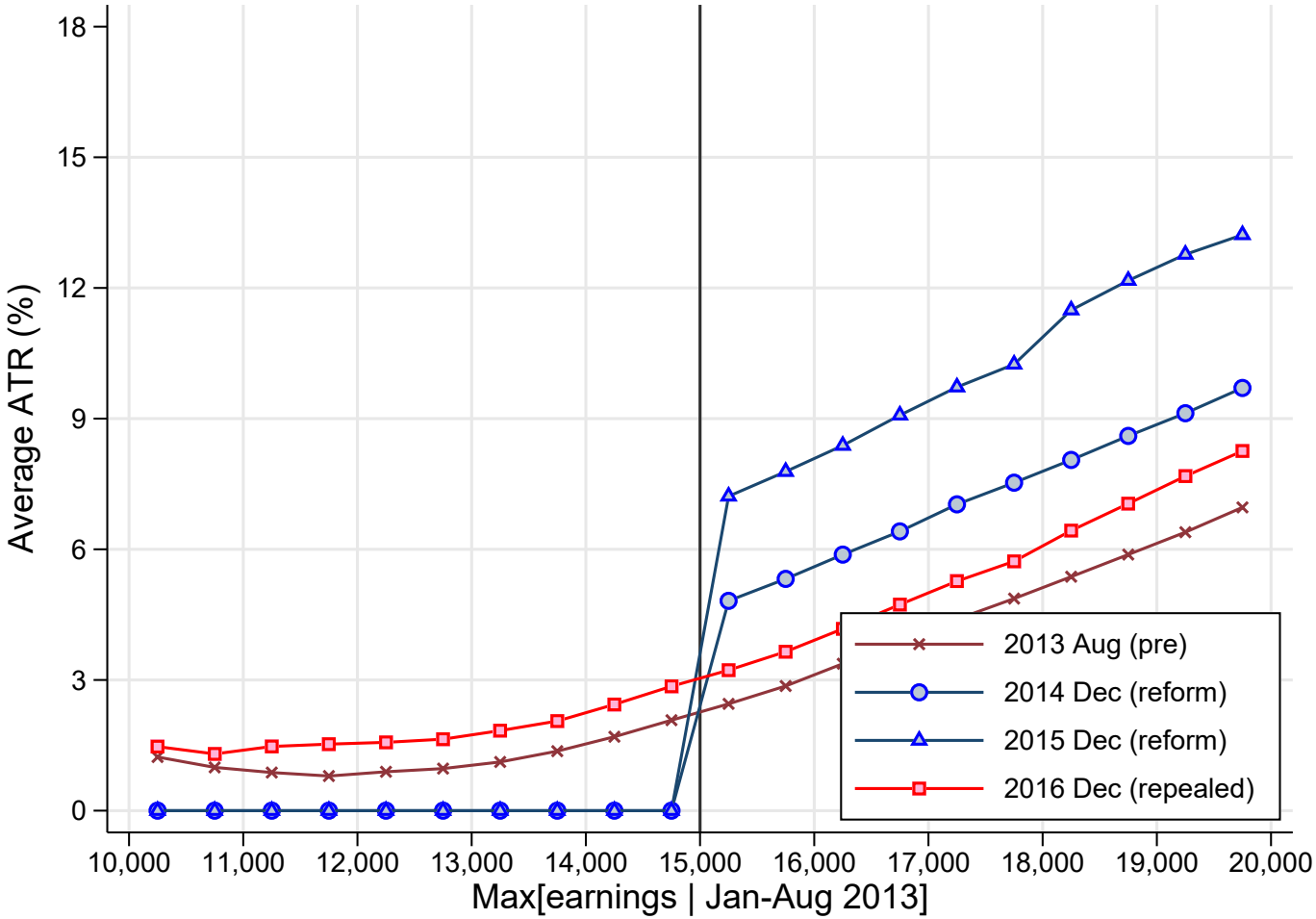
MTR married workers with children Back



Note: MTR and ATR is computed using own tax calculator (similar to the TAXSIM in the U.S.).

Empirical first stage

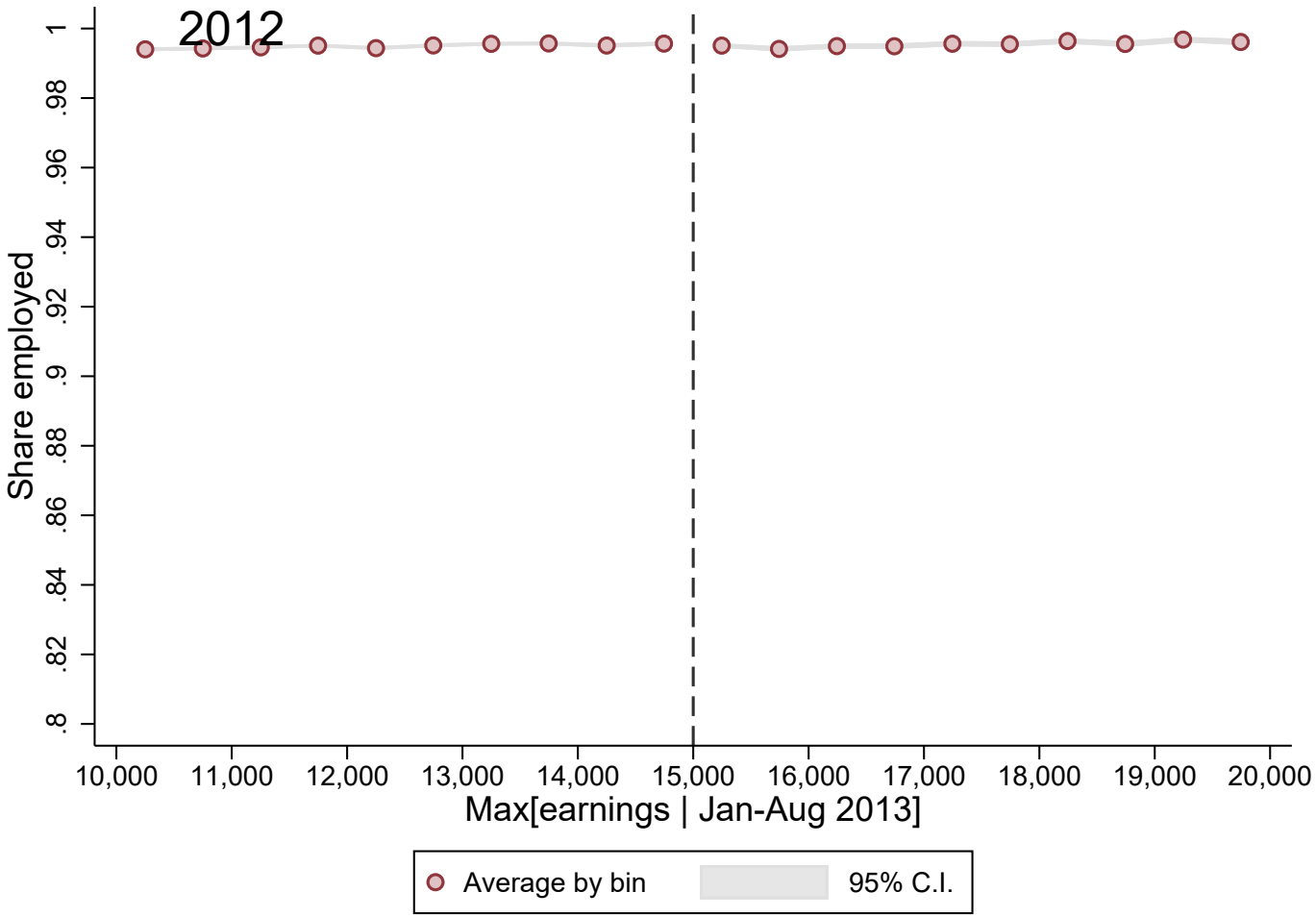
ATR married workers with children Back



Note: MTR and ATR computed using own tax calculator (similar to the TAXSIM in the U.S.).

Fraction that remains employed

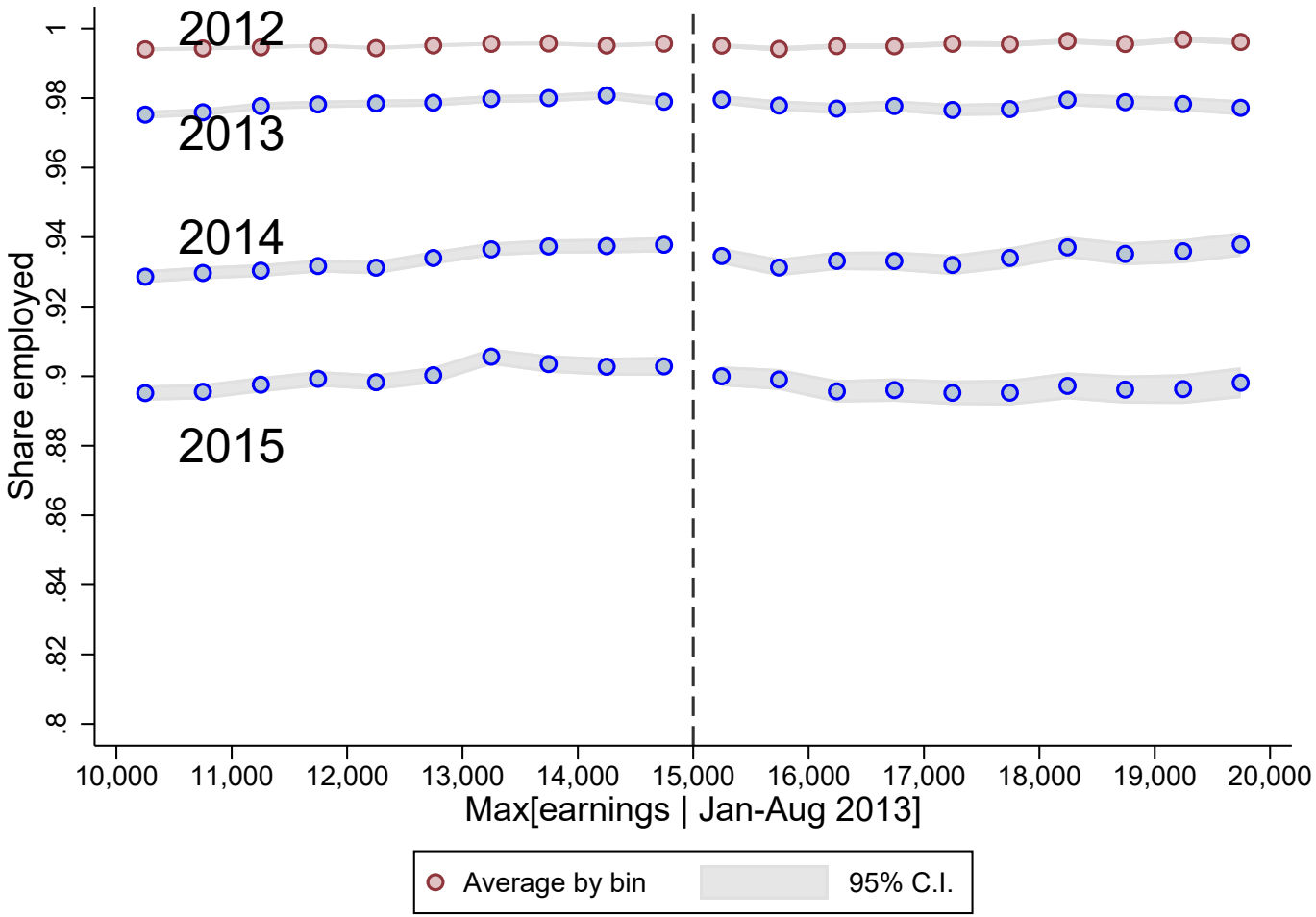
Share with positive wage earnings by December Back



Note: 10 equally spaced bins of AR$ 500 on each side.

Fraction that remains employed

Share with positive wage earnings by December Back



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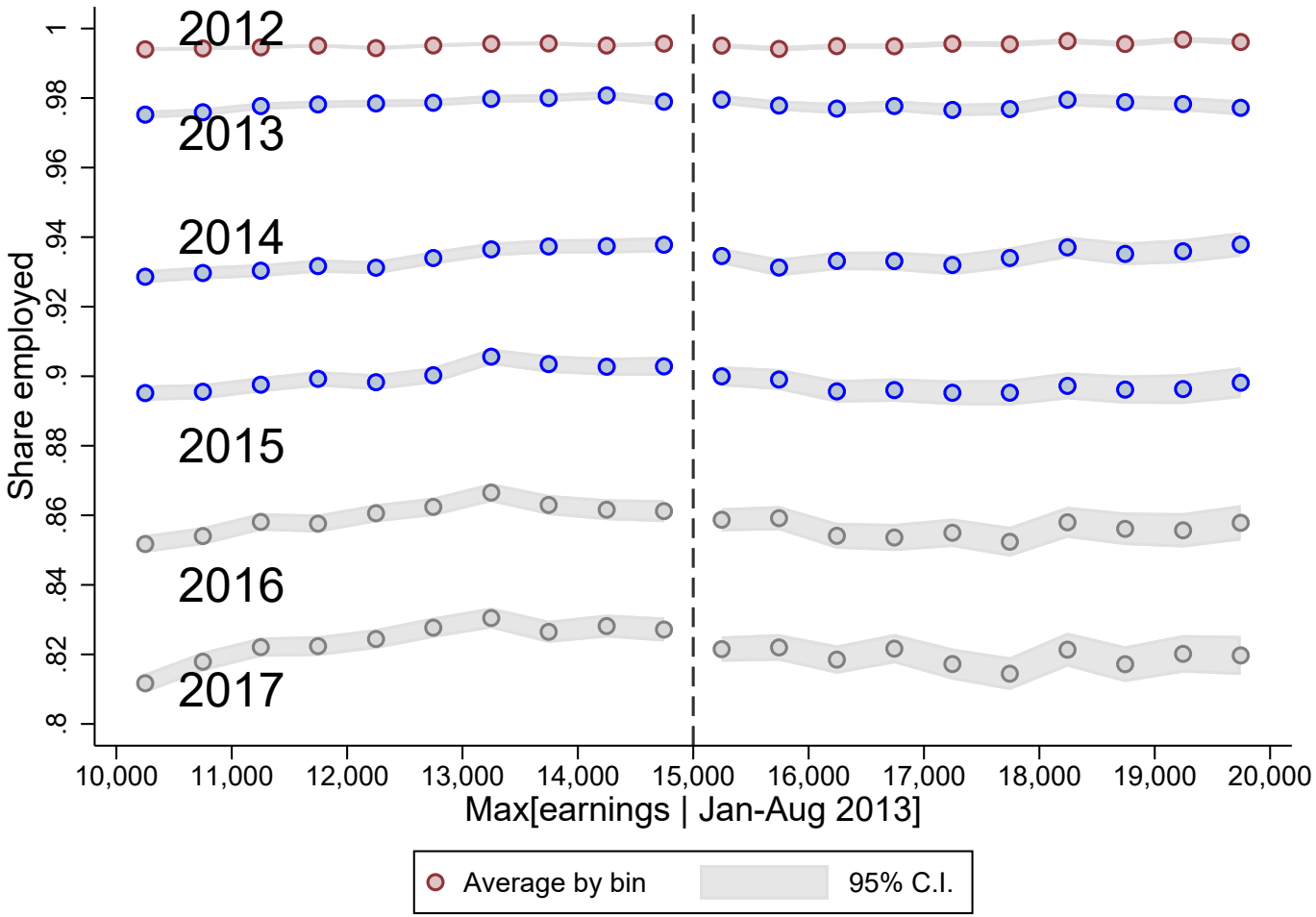
Fraction that remains employed

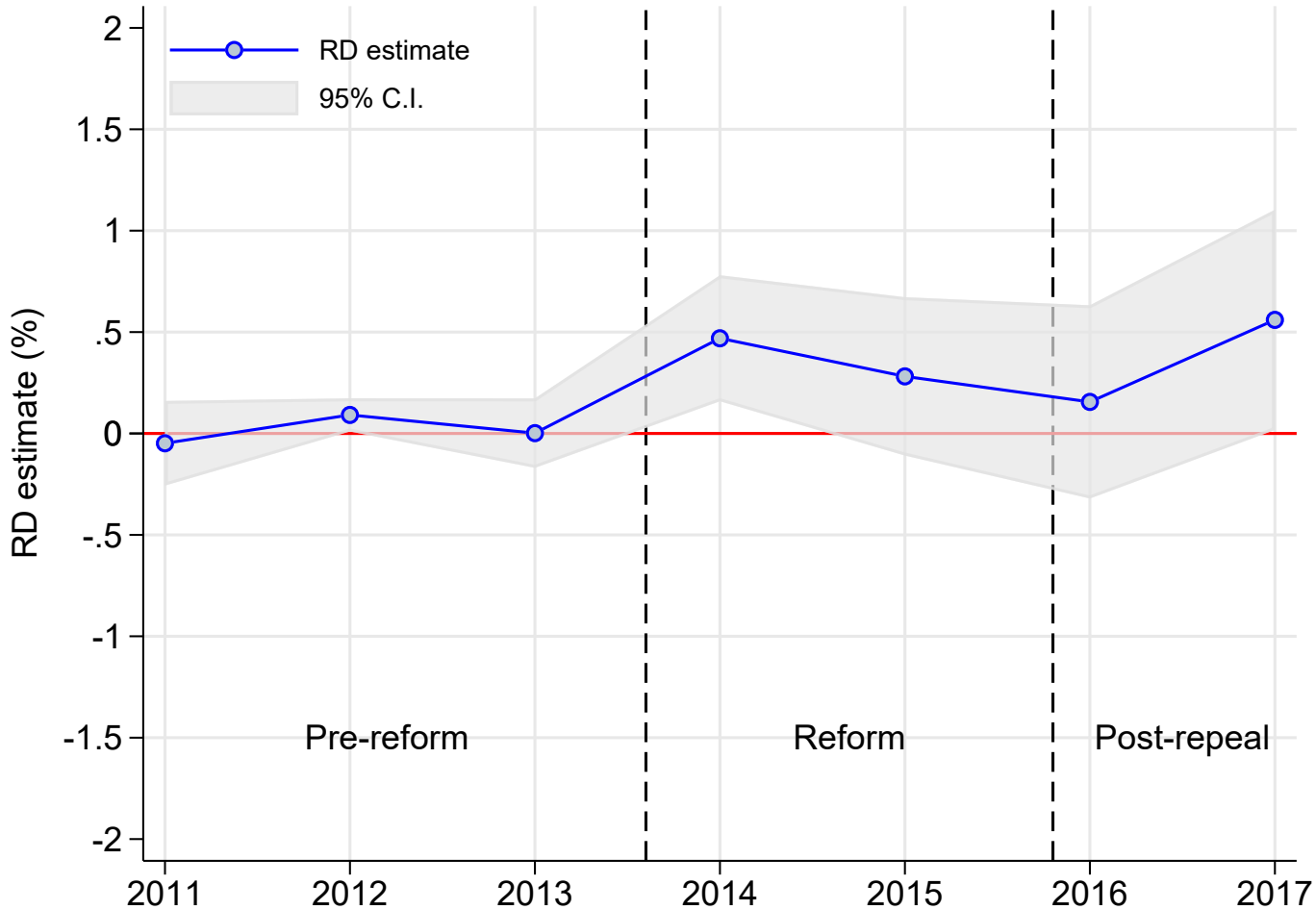
Share with positive wage earnings by December Back



Note: 10 equally spaced bins of AR$ 500 on each side.

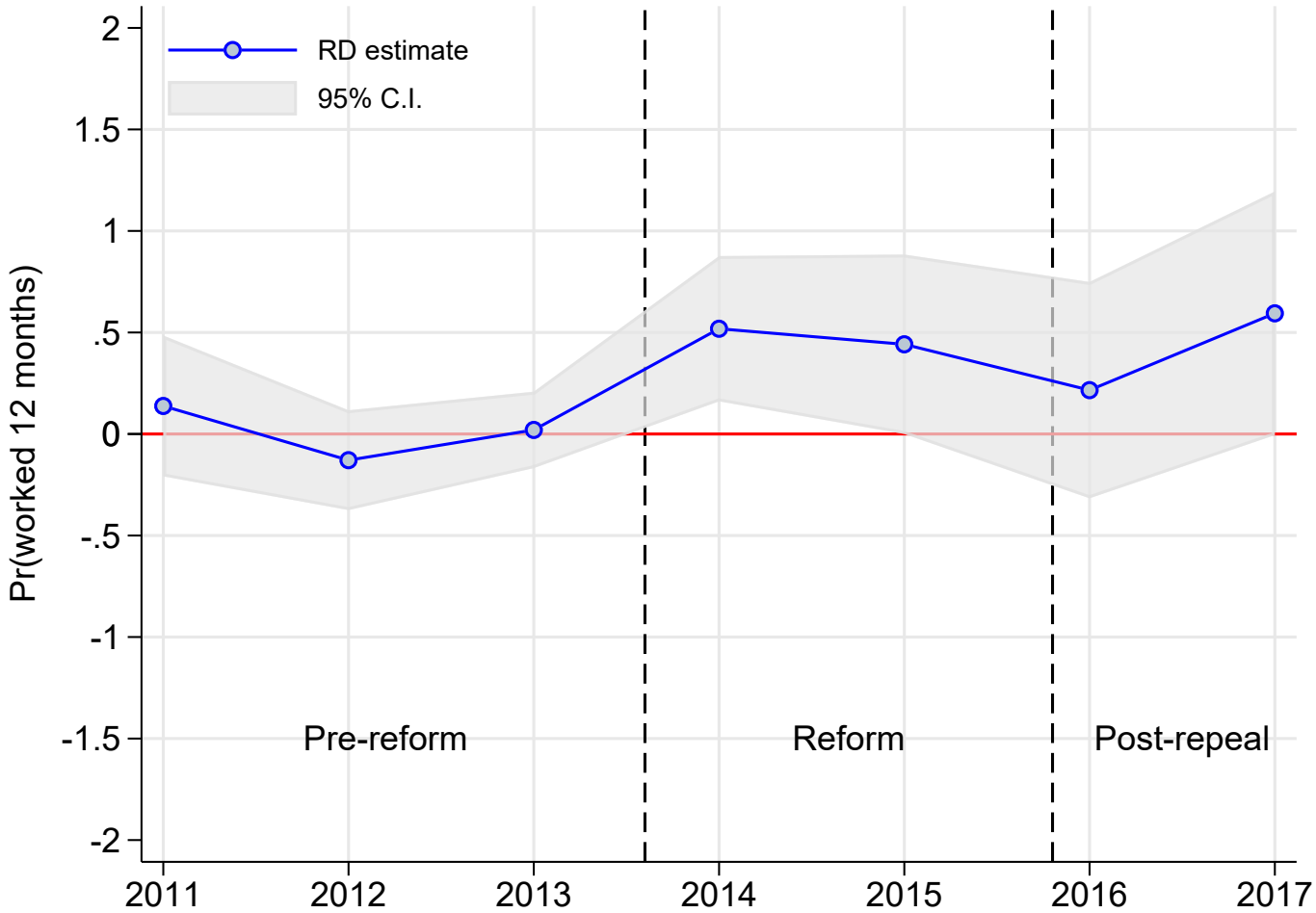
Fraction that remains employed

RD estimates at 15k from previous figure Back



Fraction that remains employed

RD estimates at 15k for Prob(working 12 months) Back

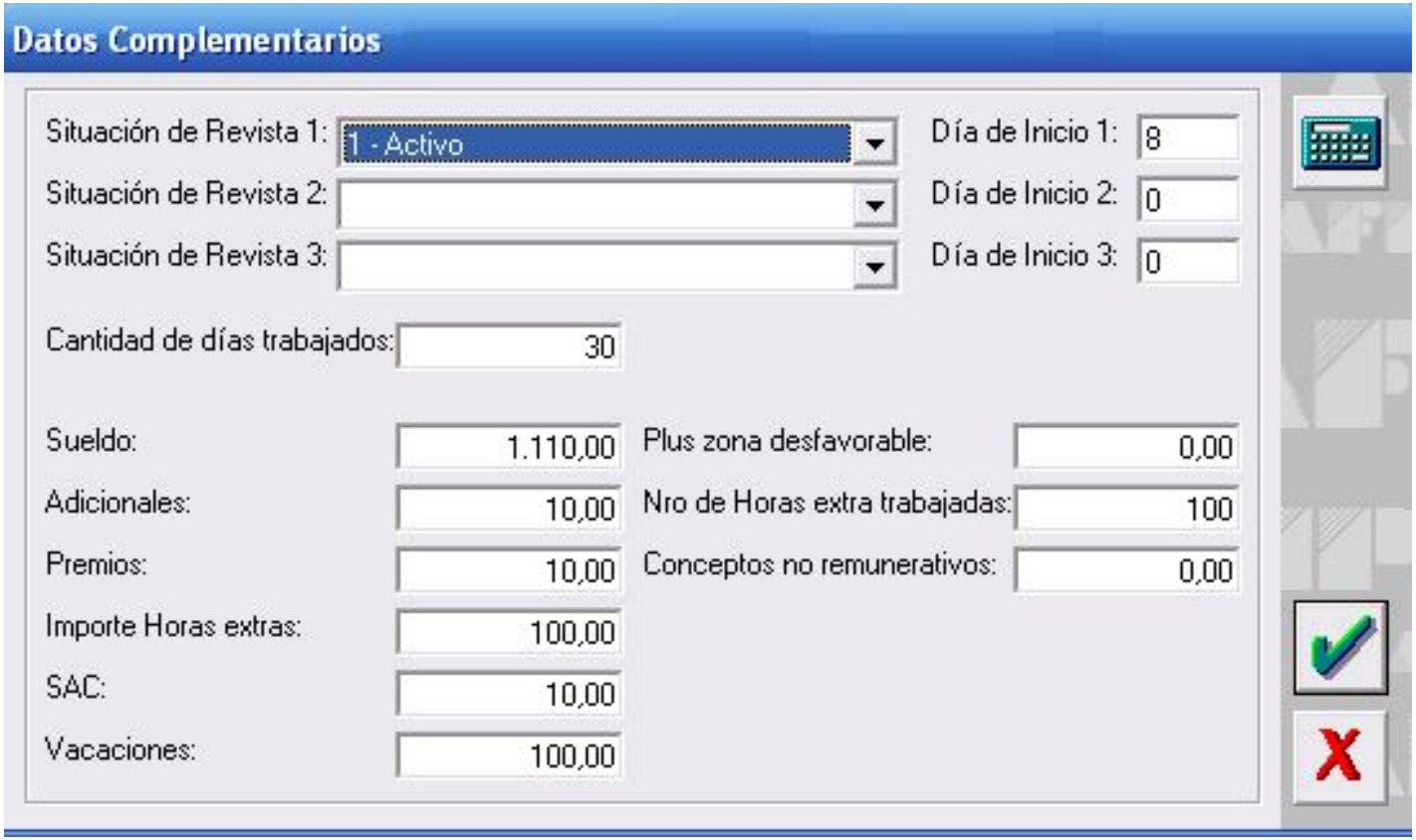


How do employers report earnings in the data? Back

- Use a centralized processing software for SSC (SICOSS) - monthly
- Report total wage earnings (gross uncapped, before SSC)
- Report also some subcomponents:
  - base salary
  - 13th salary (50% in June 50% in December)
  - overtime pay (and associated hours)
  - vacation plus
  - bonuses (productivity, commissions, presenteeism)
  - additional (tenure, college degree, meal allowance)
  - non-contributive payments (lumpsum, negotiated by unions)

Example Payslip Example pay scale

SSC filing software (*Aplicativo SICOSS*) Back



Note: this figure provides a snapshot of the managing software used by employers to report earnings and pay social security contributions every month.

Pay scale truck drivers

Back

SINDICATO DE CHOFERES DE CAMIONES

Obreros y Empleados del Transporte de Cargas por Automotor, Servicios, Logística y Distribución de la Ciudad Autónoma y Provincia de Buenos Aires

Personería Gremial Nº 6

FILIAL DE LA F.N.T.C. y O.T.A.C.L. y S. ADHERIDA A LA C.G.T

SAN JOSÉ 1781, CIUDAD DE BS. AS. (CP 1136) – TEL. 4378-1000

www.camioneros.org.ar info@camioneros-ba.org.ar

CONVENIO COLECTIVO DE TRABAJO 40/89 PLANILLA Nº 176 $

Escala salarial vigente a partir del 1° de Julio de 2013 emergente del C.C.T. aludido, Items 6.1.1. y 6.2.13.

ITEM 6.1.1. - SALARIOS BÁSICOS	POR MES	POR DÍA	Horas extra 50%	Horas extra 100%
PERSONAL OPERATIVO Ver Ref. ***15, 24, 105, 106, 202***				
Conductores - Ver ref. ***1, 2, 8, 9, 12, 13, 14, 16, 17, 20, 25, 26, 103, 201, 203, 204, 304, 501***				
a) De Primera Categoría	4.692,34	195,51	36,66	48,88
b) De Segunda Categoría	4.608,71	192,03	36,01	48,01
c) De Tercera Categoría	4.525,01	188,54	35,35	47,14
d) De grúas móviles, Autogrúas o grúas montadas sobre chassis de camión y tractocargadores y/o palas cargadoras y similares				
- Grúa h/ 10 T y autoelevadores	4.775,98	199,00	37,31	49,75
- Grúa más de 10 y h/ 20 T	5.253,58	218,90	41,04	54,73
- Grúa más de 20 y h/ 35 T	5.463,72	227,66	42,69	56,92
- Grúa más de 35 y h/ 45 T	5.682,27	236,76	44,39	59,19
- Grúa más de 45 y h/ 55 T	5.909,56	246,23	46,17	61,56
- Grúa más de 55 y h/ 70 T	6.205,04	258,54	48,48	64,64
- Grúa más de 70 y h/ 90 T	6.515,29	271,47	50,90	67,87
- Grúa más de 90 y h/ 110 T	6.841,05	285,04	53,45	71,26
- Grúa más de 110 y h/ 140 T	7.183,10	299,30	56,12	74,83
- Grúa más de 140 y h/ 170 T	7.542,26	314,26	58,92	78,57
- Grúa más de 170 y h/ 300 T	7.919,37	329,97	61,87	82,49
- Grúa más de 300 T	8.552,92	356,37	66,82	89,09
e) Encargado - Ver Ref. ***25, 26***	4.410,13	183,76	34,46	45,94

Note: this figure shows an example of a pay scale for the labor union of truck drivers.

What we observe in the data and what we don't

Back

Recibo N°: xxxxxxx Bapro

DOCUMENTO	APELLIDO Y NOMBRE	LEGAJO
XX.XXX.XXX	**XXXXXX XXXX**	xxxxx

DEPENDENCIA	AGRUPAMIENTO ADMINISTRATIVO	COND.REV	CATEG	F.INGRESO
FFFFFFFFFFFFFFF		PERMANENTE	13	--

MES/AÑO	TIPO DE LIQUIDACION	ORDEN DE PAGO	VENCIMIENTO	LIQUIDO A PAGAR
11/2016	Normal	xxxx	--	24.968,00

CDI 27-xx.xxx.xxx-8

CODIGO	CONCEPTO	HAB. C/ APORTE	HAB. S/ APORTE	DESCUENTOS
1010	BASICO	24.306,70		
1030	ANTIGÜEDAD	2.916,80		
2320	TIT.UNIVERSITARIO		4.652,00	
3000	IPS 14%			3.811,29
3010	IOMA 4.8%			1.306,73
3020	**GANANCIAS P.F. 2016**			**1.518,03**
3120	APL SINDICATO 1%			272,24
8998	REDONDEO		0,79	
		27.223,50	4.652,79	6.908,29

SON $ PESOS

VEINTICUATRO MIL NOVECIENTOS SESENTA Y OCHO.-

TOTAL DE HABERES ACREDITADOS CUENTA N° xxxxxxx SUCURSAL 2000

Contributory Non-contrib.

Income tax withholding

Gross monthly earnings

Earnings (contributory and non-contributory concepts): base salary, tenure, professional degree, special bonuses (vacations and 13th salary), overtime pay, commissions, travel allowances, etc.

Careful construction of running variable

Back

What concepts enter the running variable?

$$W_i^{max} \equiv \{highest\ gross\ \textbf{monthly wage} \mid \text{Jan to Aug 2013}\}$$

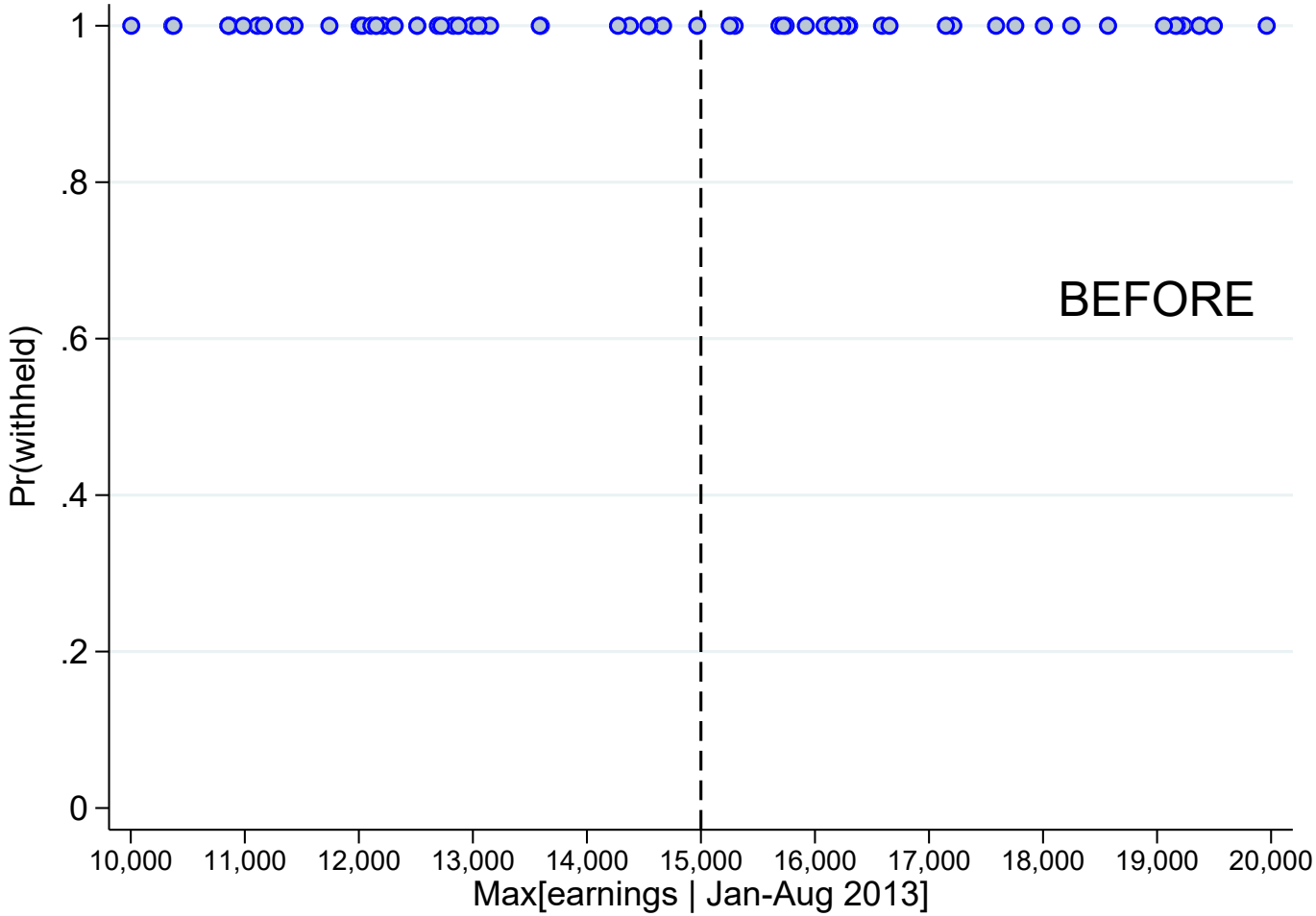
- Our data contain everything we need Anonymous firm
- **Reference period:** first 8 months of 2013 ("tax tag")
- **Monthly wage:** regular payments
  $\Rightarrow$ Exclude: 13th salary, one-time bonuses, unusual overtime, etc.

Enforcement?

- Active role of accountants
- Incentives aligned with the firm, not the employee
- Fines: 2$\times$ the tax owed if filed incorrectly; 10$\times$ for evasion

Quality check of running variable

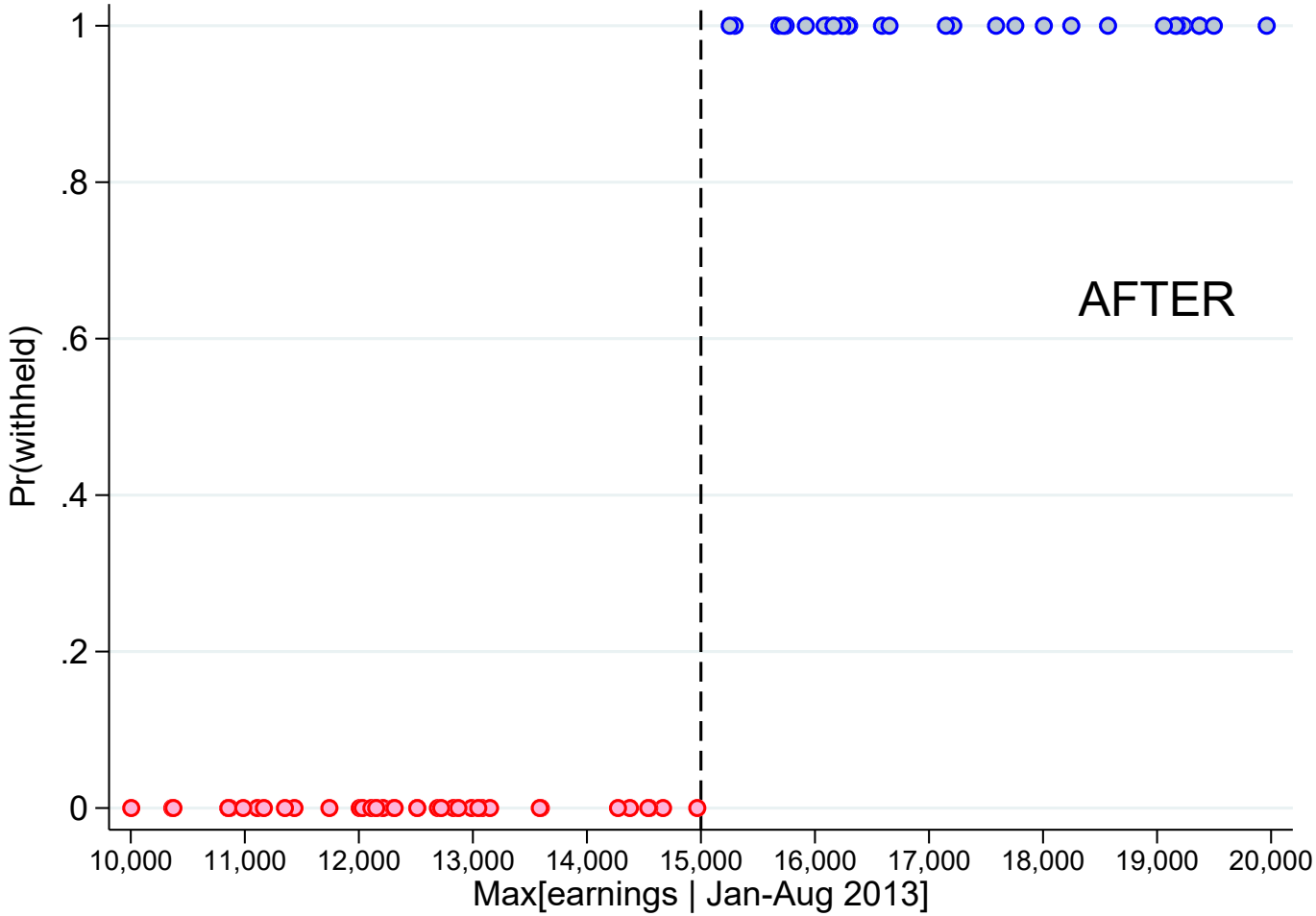
Back Channels



Note: this figure reports data from the payslips of an anonymous firm with ∼700 employees. The figure shows that the assignment of workers into exempt/non-exempt groups coincides 100% with our work.

Quality check of running variable

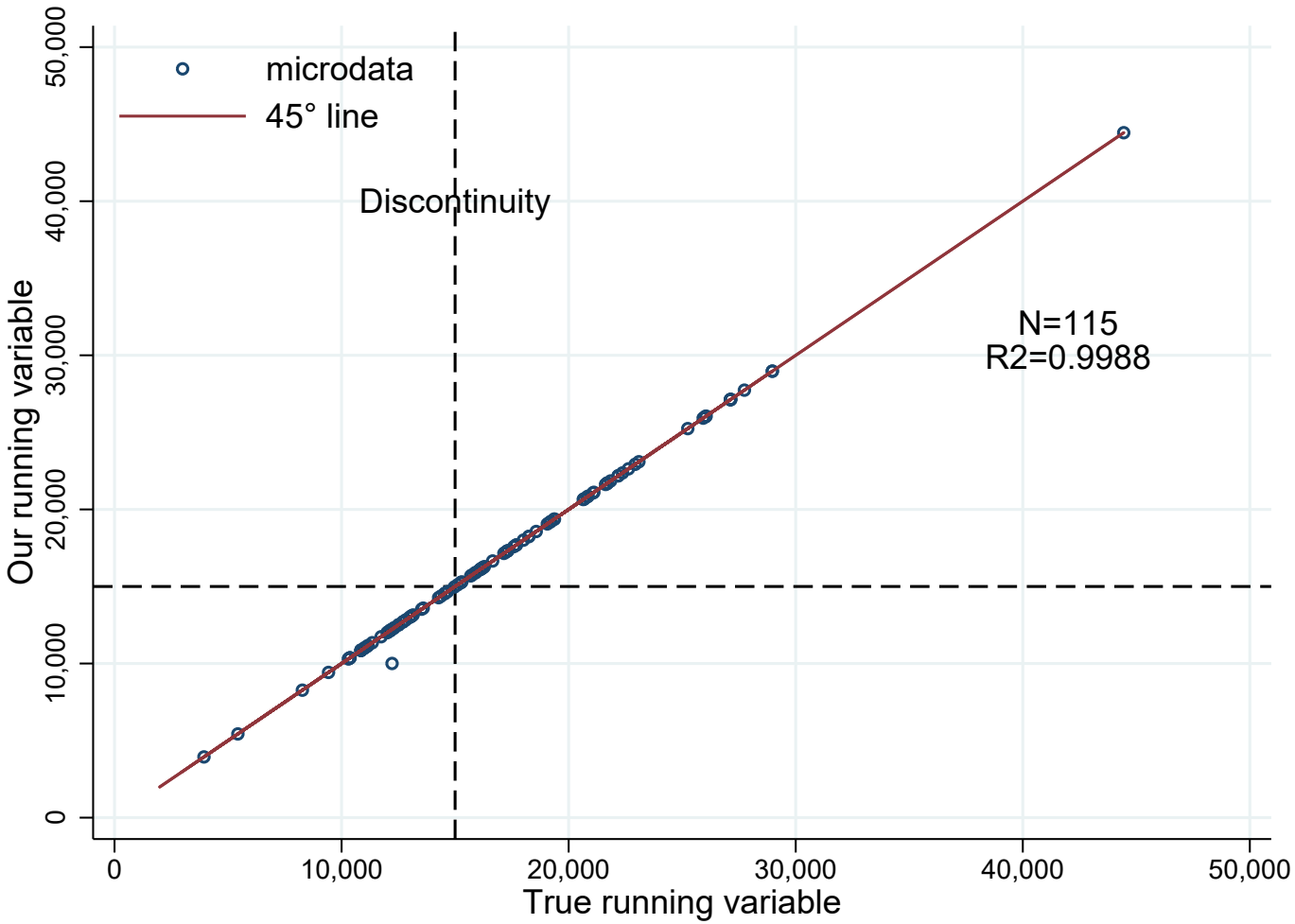
Back Channels



Note: this figure reports data from the payslips of an anonymous firm with ∼700 employees. The figure shows that the assignment of workers into exempt/non-exempt groups coincides 100% with our work.

Quality check of running variable

Back Channels



Note: this figure reports data from the payslips of an anonymous firm with ∼700 employees. The figure shows that the assignment of workers into exempt/non-exempt groups coincides 100% with our work.

Saliency: Payslip

RECIBO DE HABERES DE					N° C.U.I.L		MES	
AAAAAAAAAAAAAAAAA					xx-yyyyyyyy-z		JULIO / 2013	
LEGAJO INTEGRADO [Tipo - N° Doc. Identidad - Barra - Dígito]					DESCRIPCION			
x - yyyyyyyy - z - 0					PROFESOR ADJUNTO	DE		
TIPO DE PERSONAL	CARGO				PERMANENCIA EN CATEGORIA	ANTIGÜEDAD DE UU.NN	ANTIGÜEDAD TOTAL ACUMULADA	
	CLASE-GRUPO	FUNCION	GRADO	JEFATURA				
31	07E	5					16 3	

CODIGO DE CONCEPTO		CONCEPTO	RETRIBUCIONES	SUBTOTAL	DESCUENTOS	SUBTOTAL
4	1	BASICO CATEGORIA	7.841,47			
21	1	ANTIGUEDAD	5.489,03			
36	1	DOCTORADO	1.176,22			
52	1	ACUERDO PARIT.DOCENT	40,00	14.546,72		
1	5	D.S.S.			290,13	
2	5	IOMA PERSONAL			696,32	
303	5	APORTE LEY 19032			435,20	
304	5	AP.DIF.REG.ESPEC.2%			290,13	
308	5	AP.REG.ESPEC.11%			1.595,74	
386	5	IMPUESTO A LAS GANAN			826,64	
389	5	SEGURO OBLIGATORIO			3,80	4.137,96

Back

Saliency: Payslip

RECIBO DE HABERES DE					N° C.U.I.L		MES	
AAAAAAAAAAAAAAAAAA					xx-yyyyyyyy-z		SEPTIEMBRE/13	
LEGAJO INTEGRADO [Tipo - N° Doc. Identidad - Barra - Dígito]					DESCRIPCION			
x - yyyyyyyy - z - 0					PROFESOR ADJUNTO	DE		
TIPO DE PERSONAL	CARGO				PERMANENCIA EN CATEGORIA	ANTIGÜEDAD DE UU.NN	ANTIGÜEDAD TOTAL ACUMULADA	
	CLASE-GRUPO	FUNCION	GRADO	JEFATURA				
31	07E	5					16 5	

CODIGO DE CONCEPTO		CONCEPTO	RETRIBUCIONES	SUBTOTAL	DESCUENTOS	SUBTOTAL
4	1	BASICO CATEGORIA	7.928,54			
21	1	ANTIGUEDAD	5.549,98			
36	1	DOCTORADO	1.189,28			
52	1	ACUERDO PARIT.DOCENT	40,00	14.707,80		
1	5	D.S.S.			293,36	
2	5	IOMA PERSONAL			704,05	
303	5	APORTE LEY 19032			440,03	
304	5	AP.DIF.REG.ESPEC.2%			293,36	
308	5	AP.REG.ESPEC.11%			1.613,46	
386	5	IMPUESTO A LAS GANAN			559,43	
389	5	SEGURO OBLIGATORIO			3,80	3.907,49
386	7	BENEFICIO DEC1242/13	559,43	559,43		

Back

Saliency: Payslip

RECIBO DE HABERES DE	N° C.U.I.L	MES
AAAAAAAAAAAAAAAAA	xx-yyyyyyyy-z	FEBRERO/2016
LEGAJO INTEGRADO [Tipo - N° Doc. Identidad - Barra - Dígito]	**DESCRIPCION**	
x - yyyyyyyy - z - 0	PROFESOR ADJUNTO DE	

TIPO DE PERSONAL	CARGO				PERMANENCIA EN CATEGORIA	ANTIGÜEDAD DE UU.NN	ANTIGÜEDAD TOTAL ACUMULADA
	CLASE-GRUPO	FUNCION	GRADO	JEFATURA			
31	07E	5					20 5

CODIGO DE CONCEPTO		CONCEPTO	RETRIBUCIONES	SUBTOTAL	DESCUENTOS	SUBTOTAL
4	1	BASICO CATEGORIA	15.104,96			
21	1	ANTIGUEDAD	15.104,96			
36	1	DOCTORADO	2.567,84			
52	1	ACUERDO PARIT.DOCENT	40,00	32.817,76		
1	5	D.S.S.			655,56	
2	5	IOMA PERSONAL			1.573,33	
303	5	APORTE LEY 19032			983,33	
304	5	AP.DIF.REG.ESPEC.2%			655,56	
308	5	AP.REG.ESPEC.11%			3.605,55	
386	5	IMPUESTO A LAS GANAN			5.599,54	
389	5	SEGURO OBLIGATORIO			3,80	13.076,67
386	7	BENEFICIO DEC1242/13	5.599,54	5.599,54		

Back

Saliency: Payslip

RECIBO DE HABERES DE					N° C.U.I.L		MES	
AAAAAAAAAAAAAAAAA					xx-yyyyyyyy-z		MARZO / 2016	
LEGAJO INTEGRADO [Tipo - N° Doc. Identidad - Barra - Dígito]					DESCRIPCION			
x - yyyyyyyy - z - 0					PROFESOR ADJUNTO	DE		
TIPO DE PERSONAL	CARGO				PERMANENCIA EN CATEGORIA	ANTIGÜEDAD DE UU.NN	ANTIGÜEDAD TOTAL ACUMULADA	
	CLASE-GRUPO	FUNCION	GRADO	JEFATURA				
31	07E	5					20 6	

CODIGO DE CONCEPTO		CONCEPTO	RETRIBUCIONES	SUBTOTAL	DESCUENTOS	SUBTOTAL
4	1	BASICO CATEGORIA	15.104,96			
21	1	ANTIGUEDAD	15.104,96			
36	1	DOCTORADO	2.567,84			
52	1	ACUERDO PARIT.DOCENT	40,00	32.817,76		
1	5	D.S.S.			655,56	
2	5	IOMA PERSONAL			1.573,33	
303	5	APORTE LEY 19032			983,33	
304	5	AP.DIF.REG.ESPEC.2%			655,56	
308	5	AP.REG.ESPEC.11%			3.605,55	
386	5	IMPUESTO A LAS GANAN			517,80	
389	5	SEGURO OBLIGATORIO			3,80	7.994,93
386	6	IMPUESTO A LAS GANAN			103,55	103,55

Back

Saliency: newspapers

Centre-right newspapers (La Nación and Clarín) Back

(g) August 28th, 2013

(h) August 28th, 2013

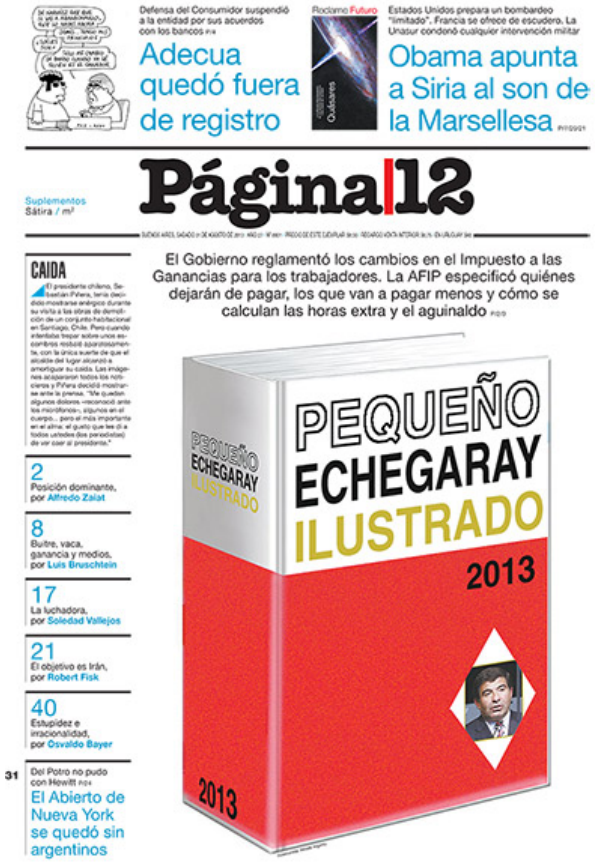
(i) July 22nd, 2014

(j) April 1st, 2015

Saliency: newspapers

Centre-left newspaper (Página|12) Back

(k) August 28th, 2013

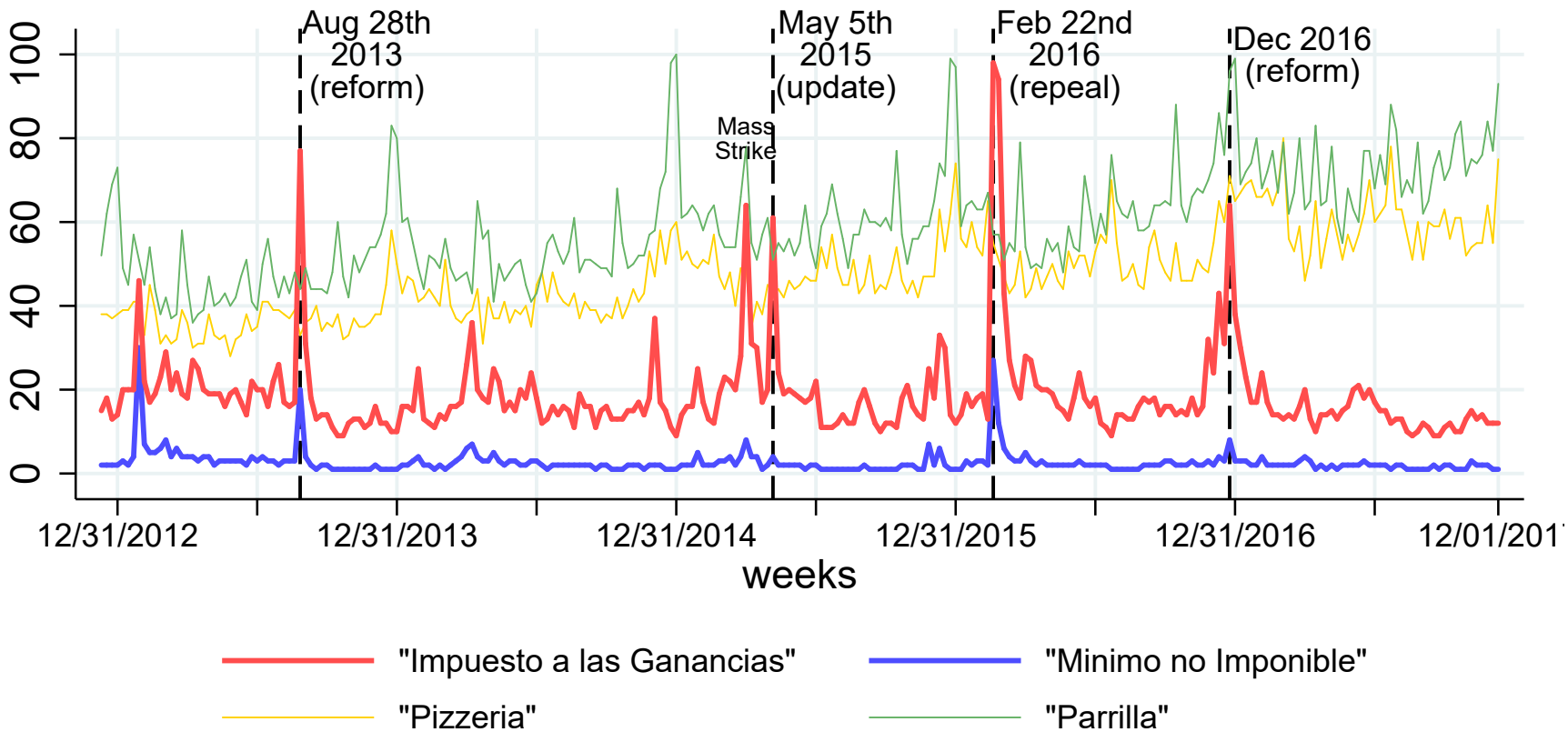


(l) August 31st, 2013

Saliency: Google Trends

Back

As popular as "*parrillas*" in New Year's Eve



Data source: Google Trends (www.google.com/trends)

Nationwide strike, March 31st 2015

Note: this picture shows a sign posted on the subway calling to join a general strike against the income tax. The sign reads "*Damn income tax. National strike March 31, 2015. Transport workers.*". Back

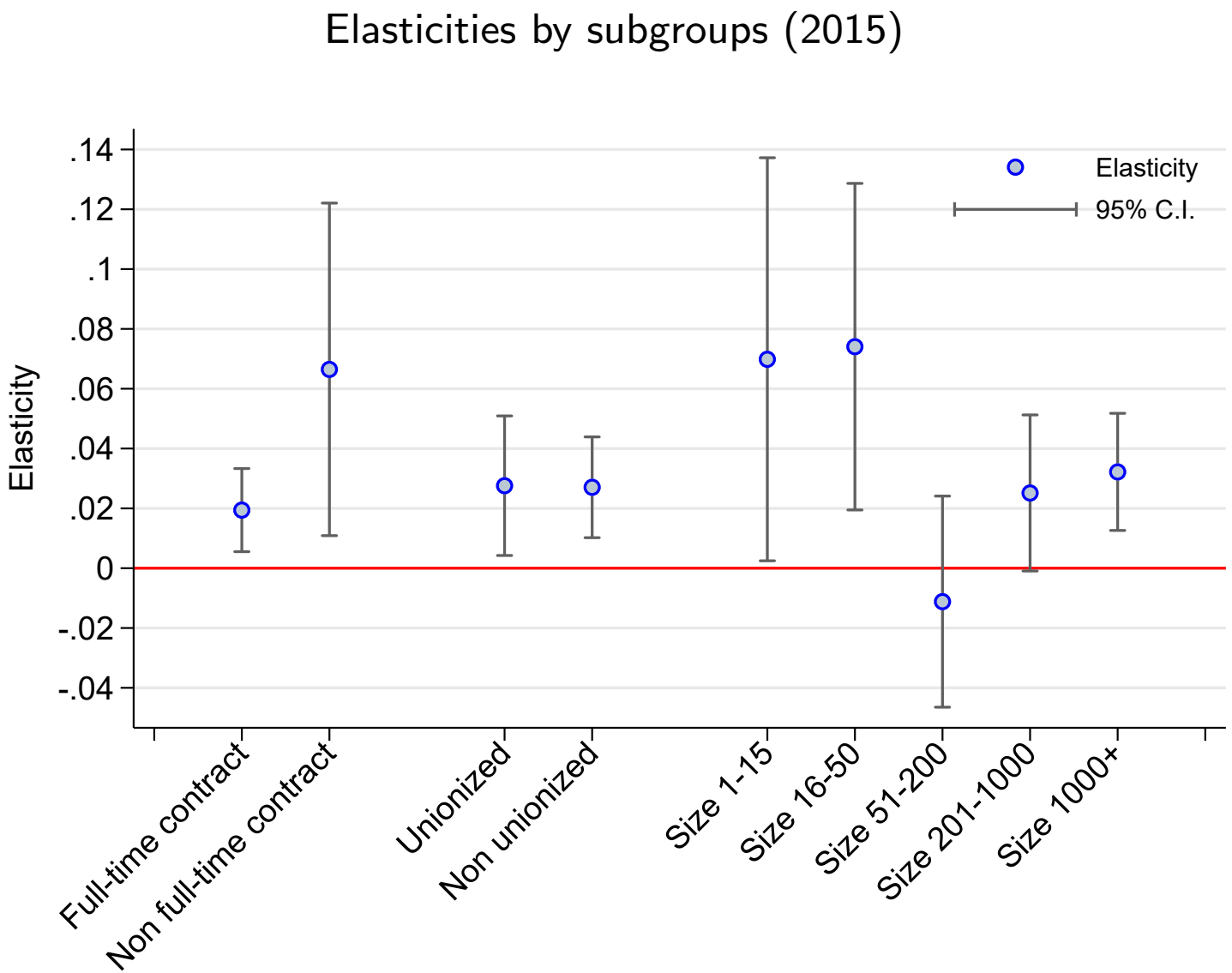
Robustness checks Back

Other outcomes:

- Overtime, Job switch, Multiple jobs, Percentiles Xth within bin;

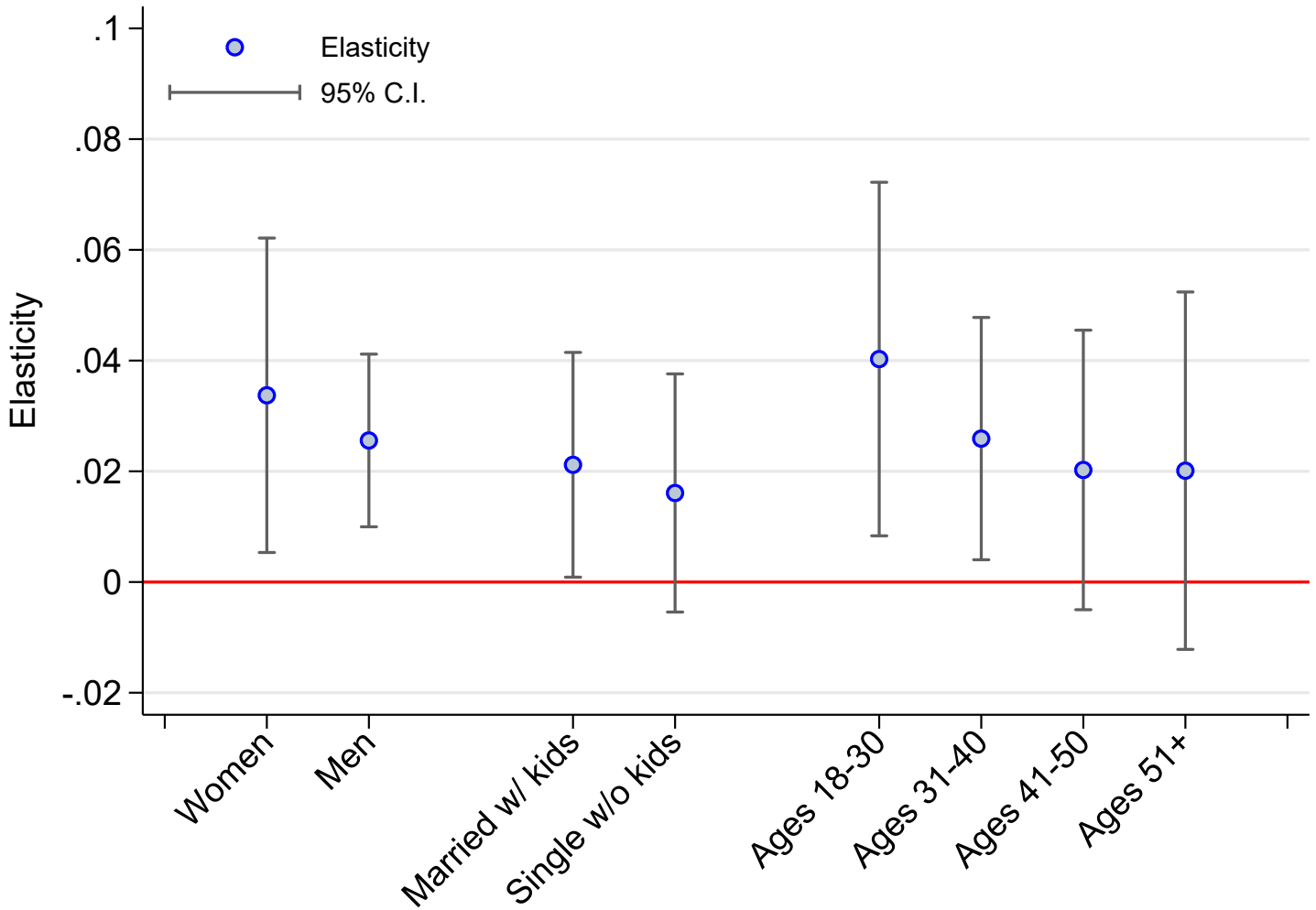
Subgroups:

1. **Demographics**: women vs men; age groups; spouse and children View
2. **Firm size**: small, medium-1, medium-2, large-1, large-2
3. **Sectors**: manufacturing, transport, professionals, retail, financial View
4. **Unionized/Labor unions**: bus/truck drivers, metalworkers, etc.
5. **Occupations**: managers, office clerks, professionals, drivers
6. **Type of contract** non full-time
7. **Switchers**


Elasticities by subgroups (2015)
Elasticity
.14
.12
.1
.08
.06
.04
.02
0
-.02
-.04
Elasticity
95% C.I.
Full-time contract
Non full-time contract
Unionized
Non unionized
Size 1-15
Size 16-50
Size 51-200
Size 201-1000
Size 1000+

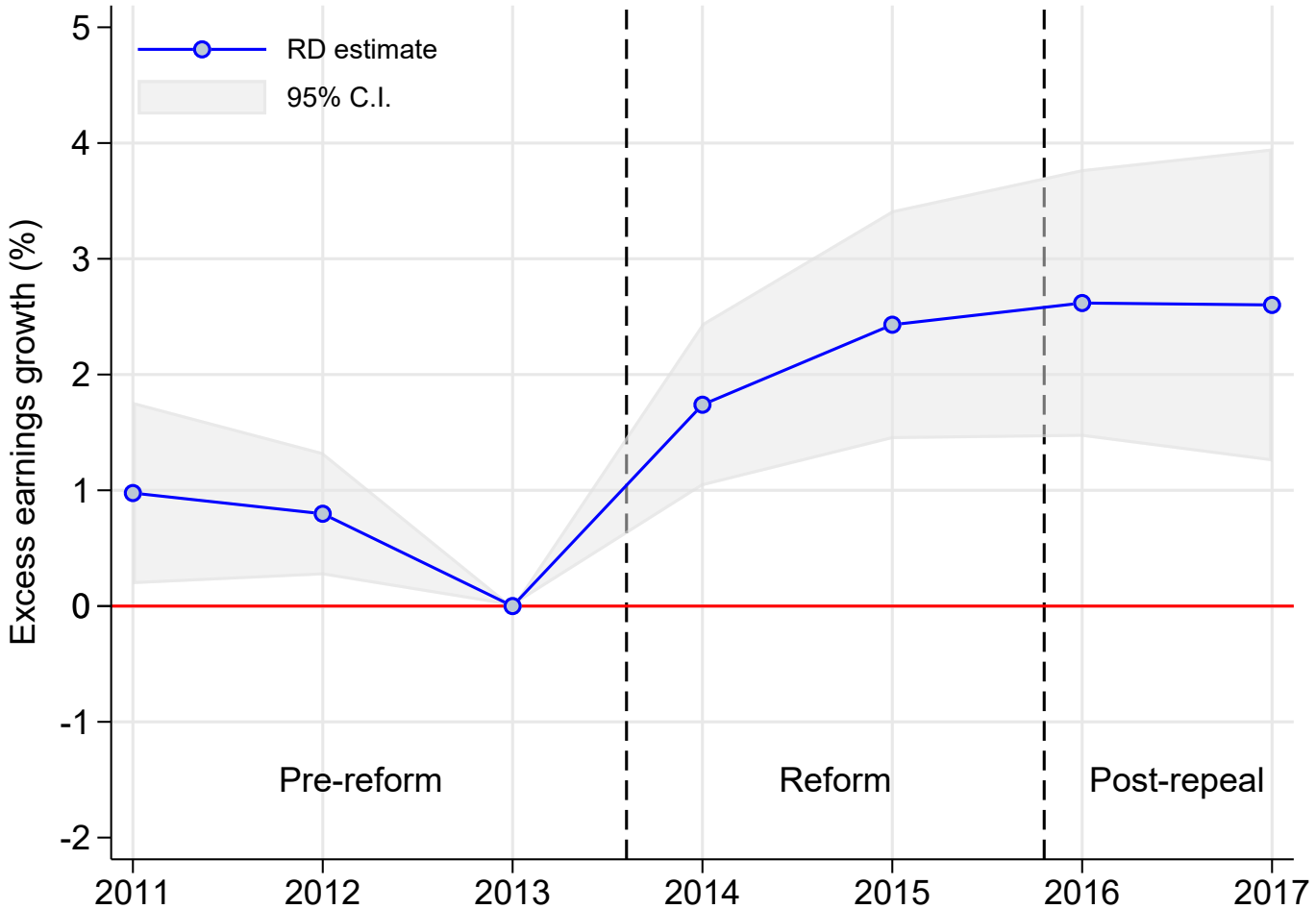
Elasticities by demographic subgroups (2015)

Back



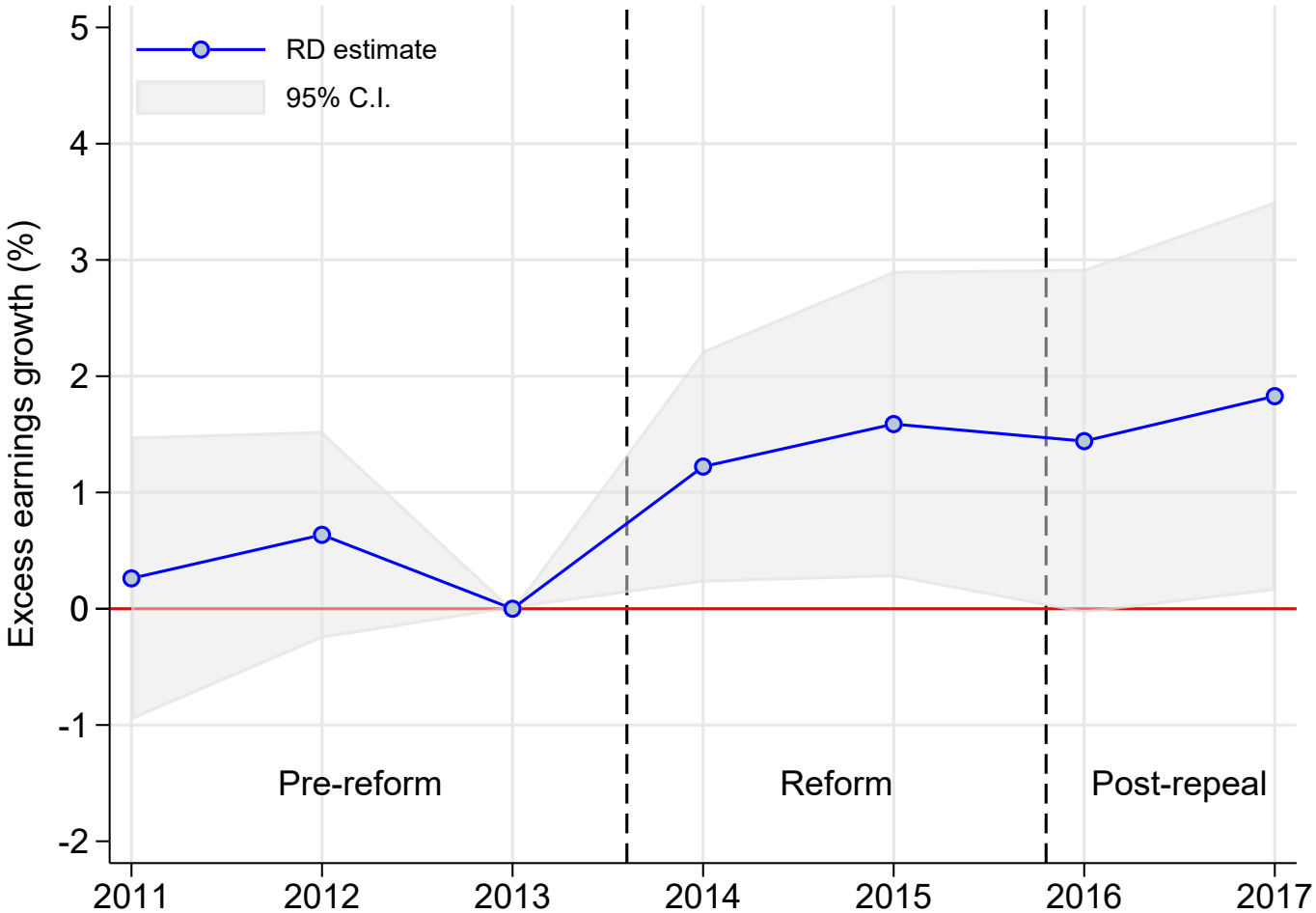
Professional services (attorneys, accountants), Construction

Back

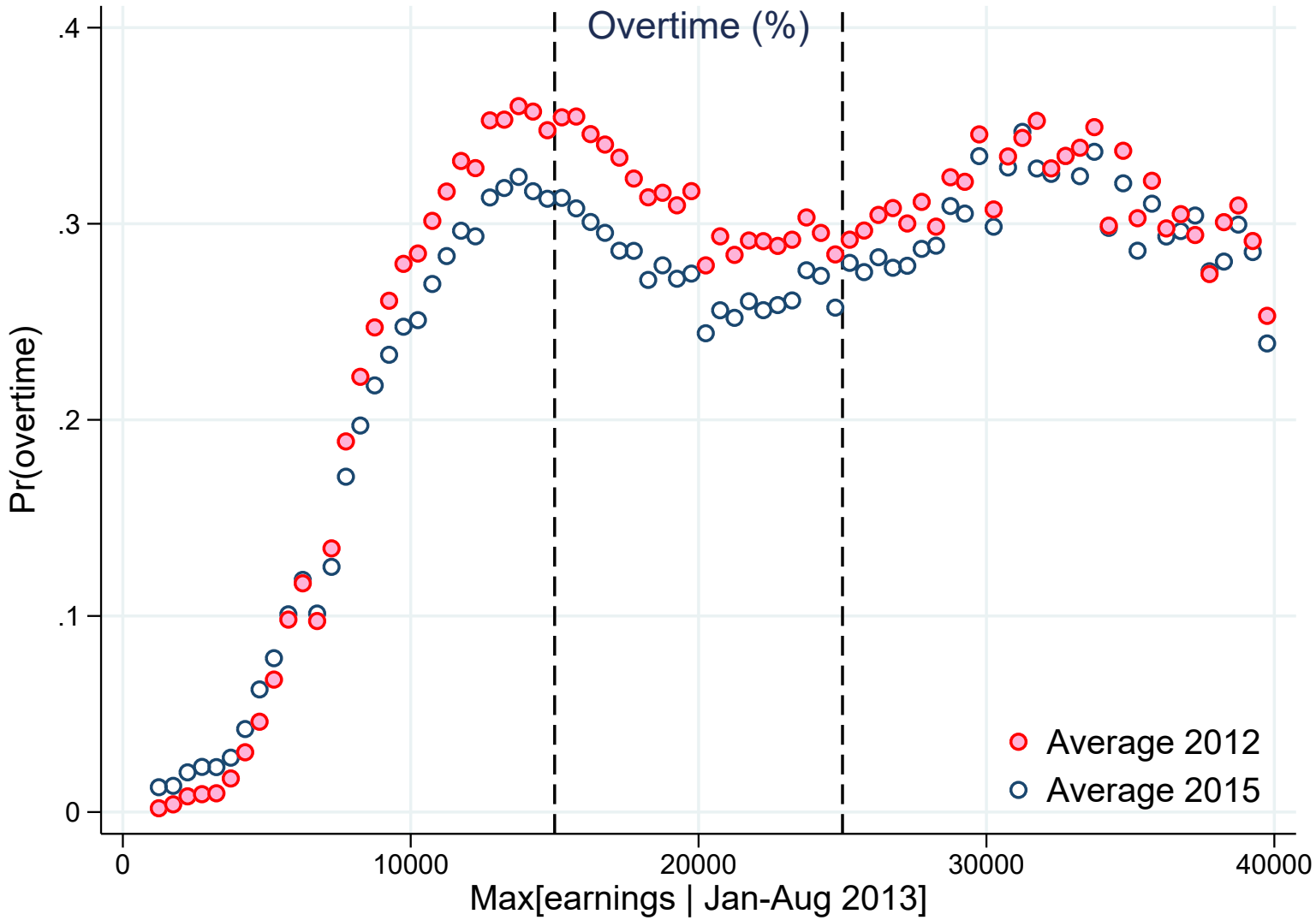


Workers under non full-time contract

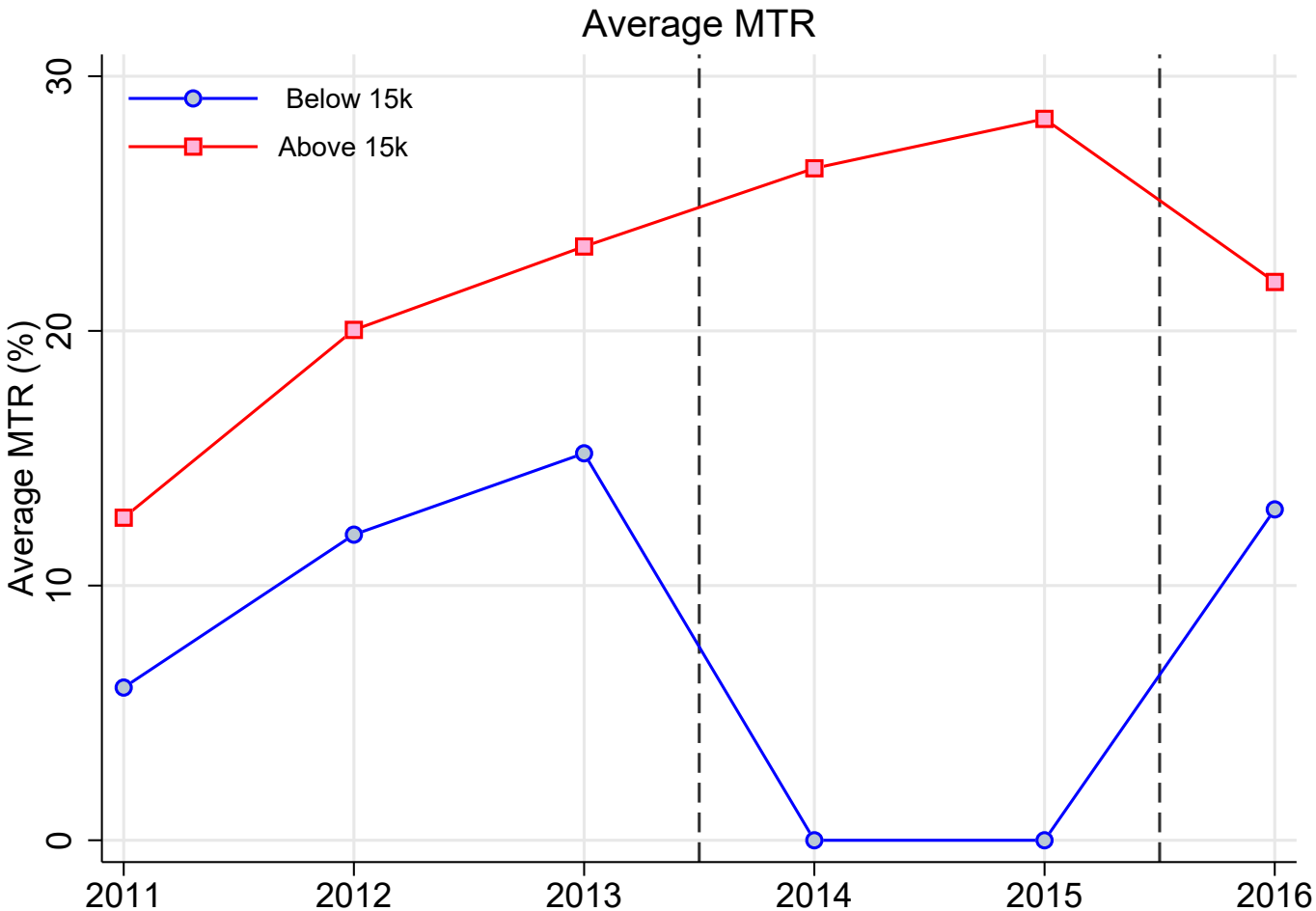
Back



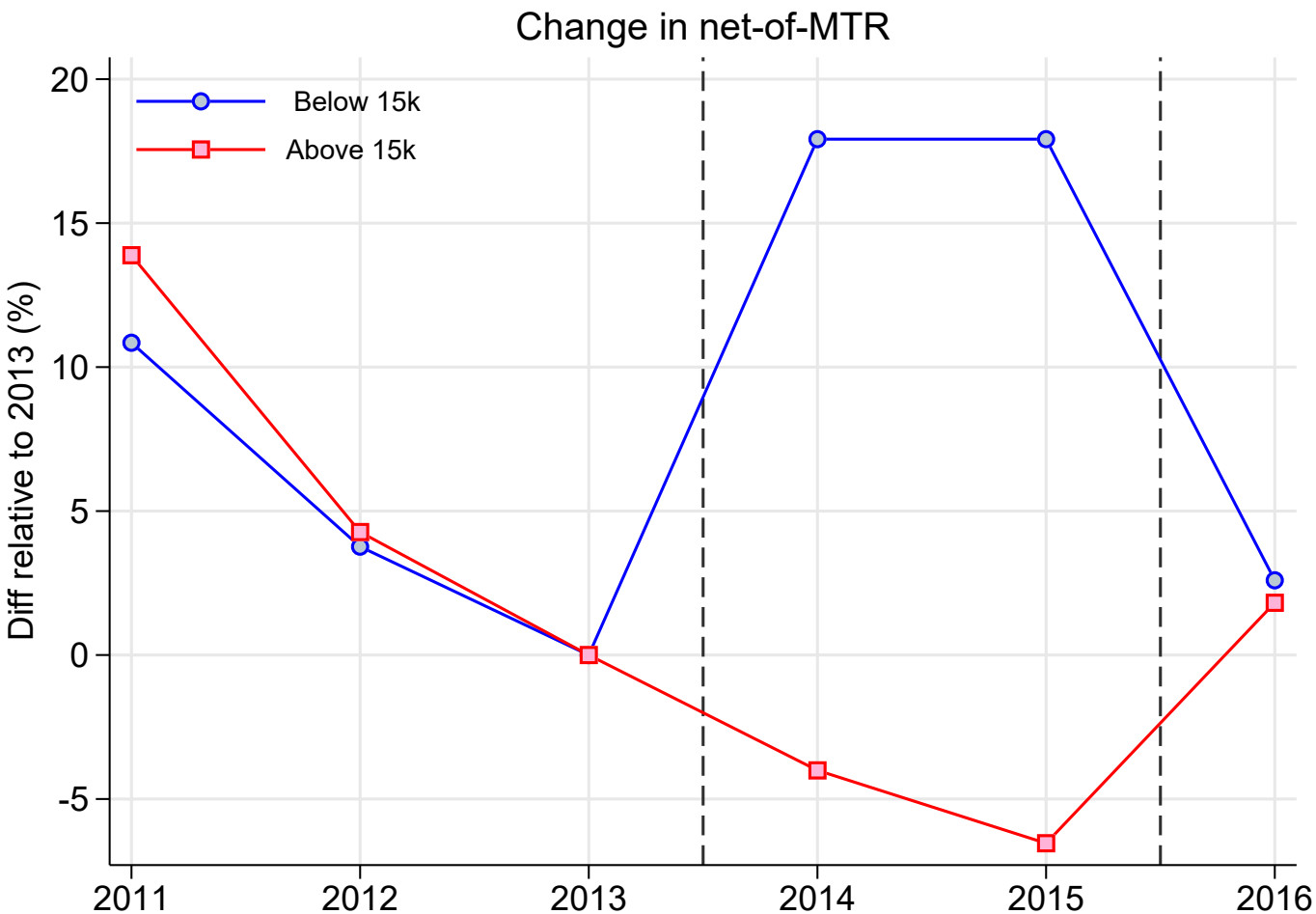
Overtime distribution



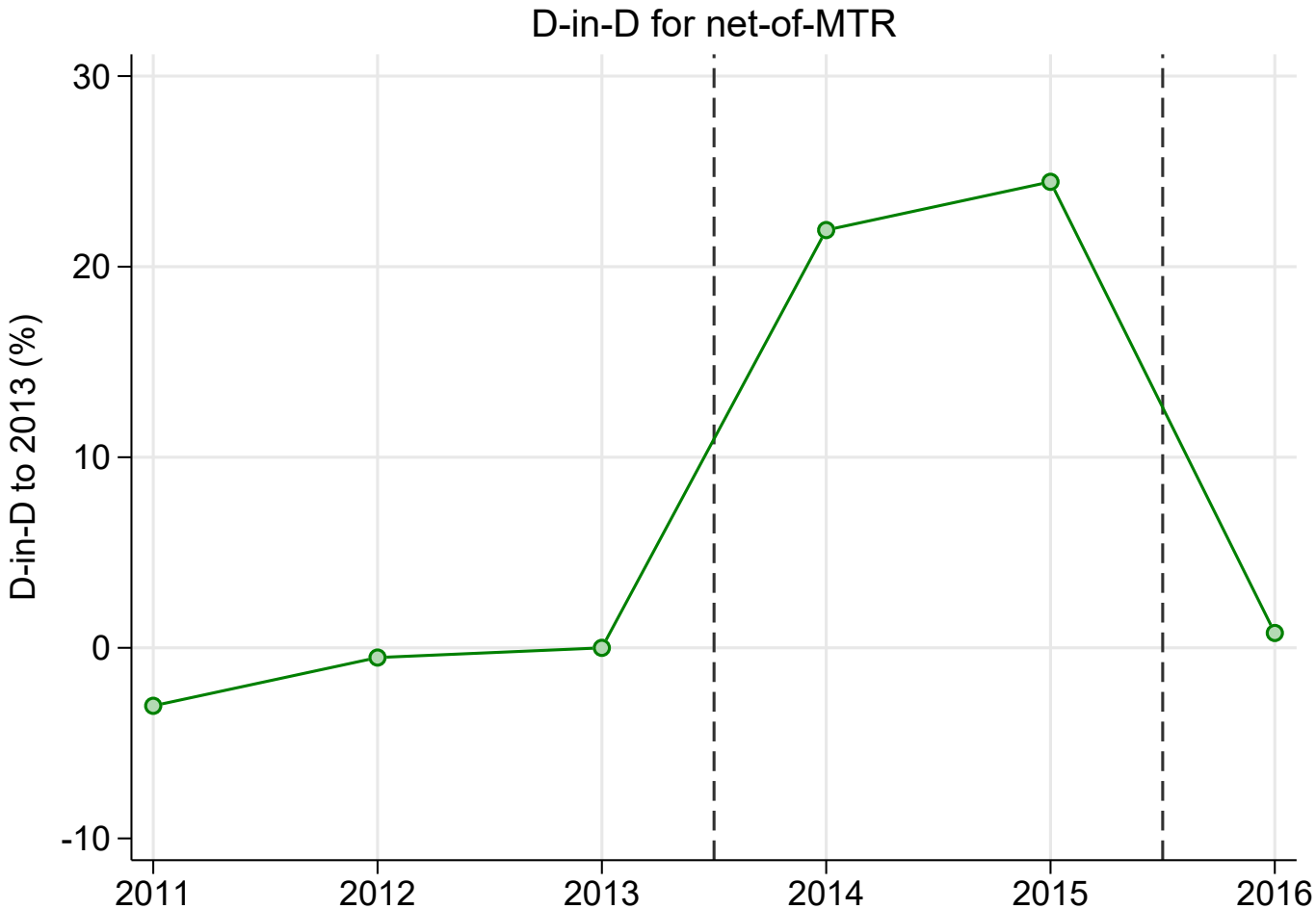
First Stage D-in-D for the Average MTR



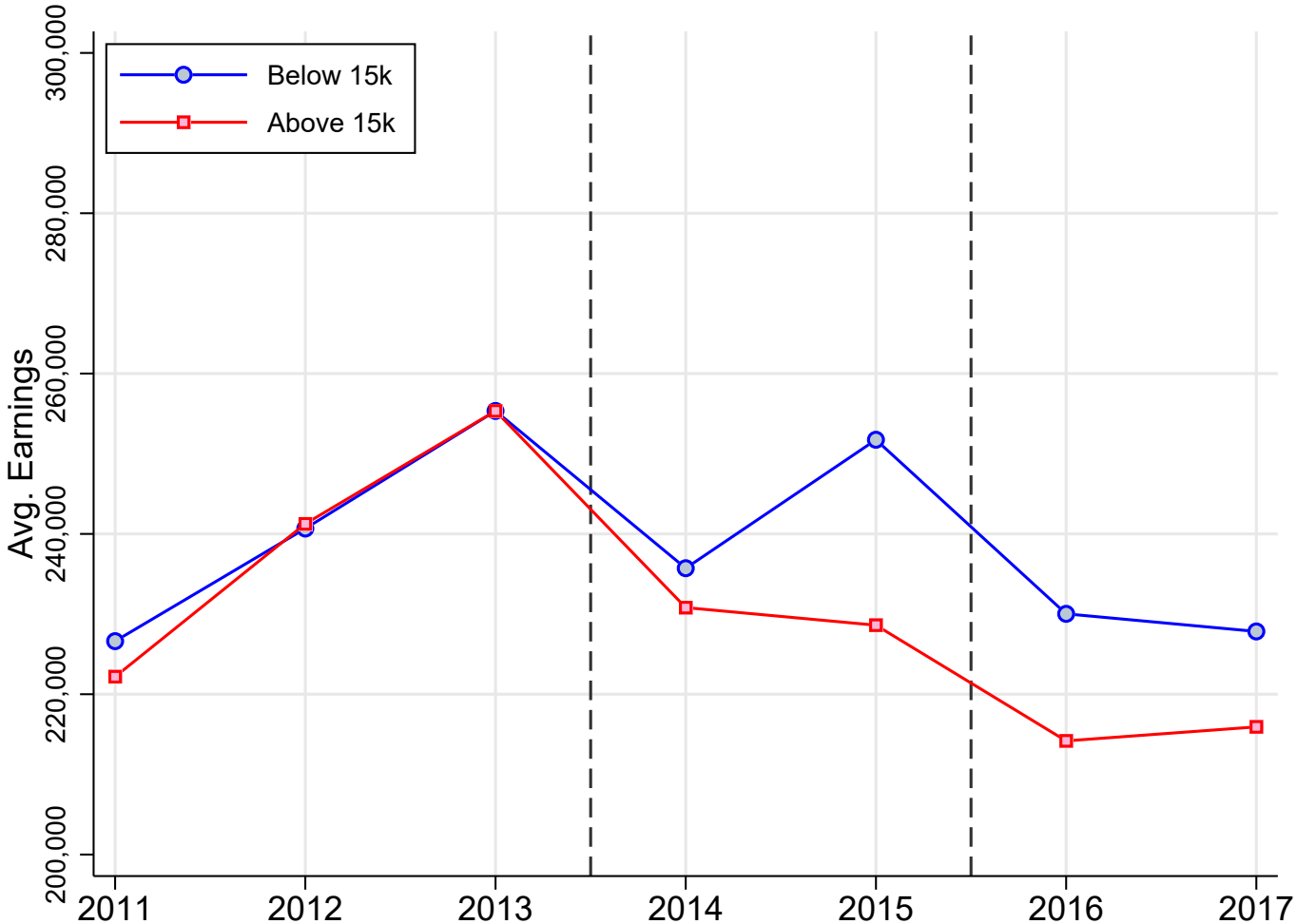
First Stage D-in-D for the Average MTR



First Stage D-in-D for the Average MTR

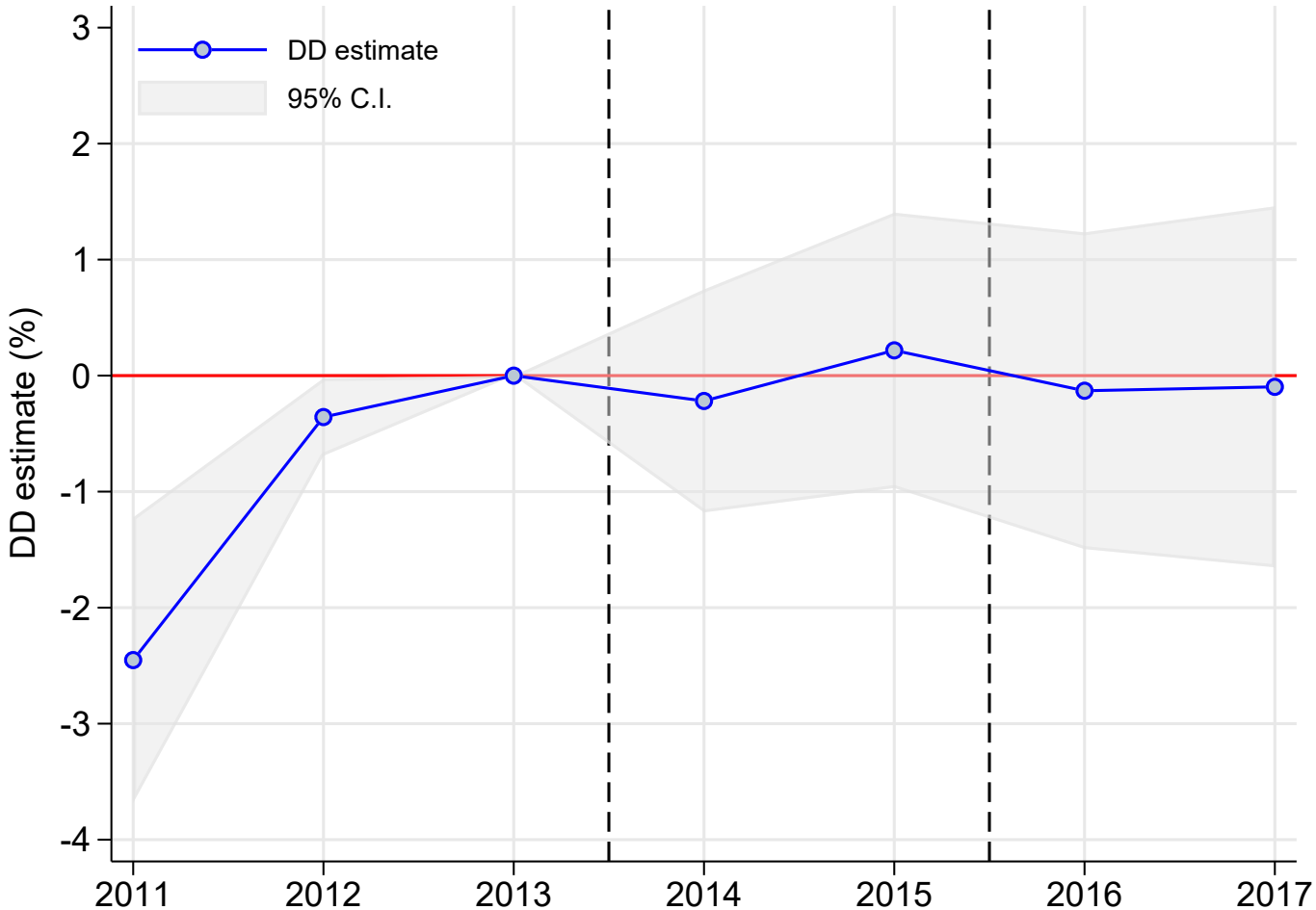


Executives and Managers
DinD levels Back



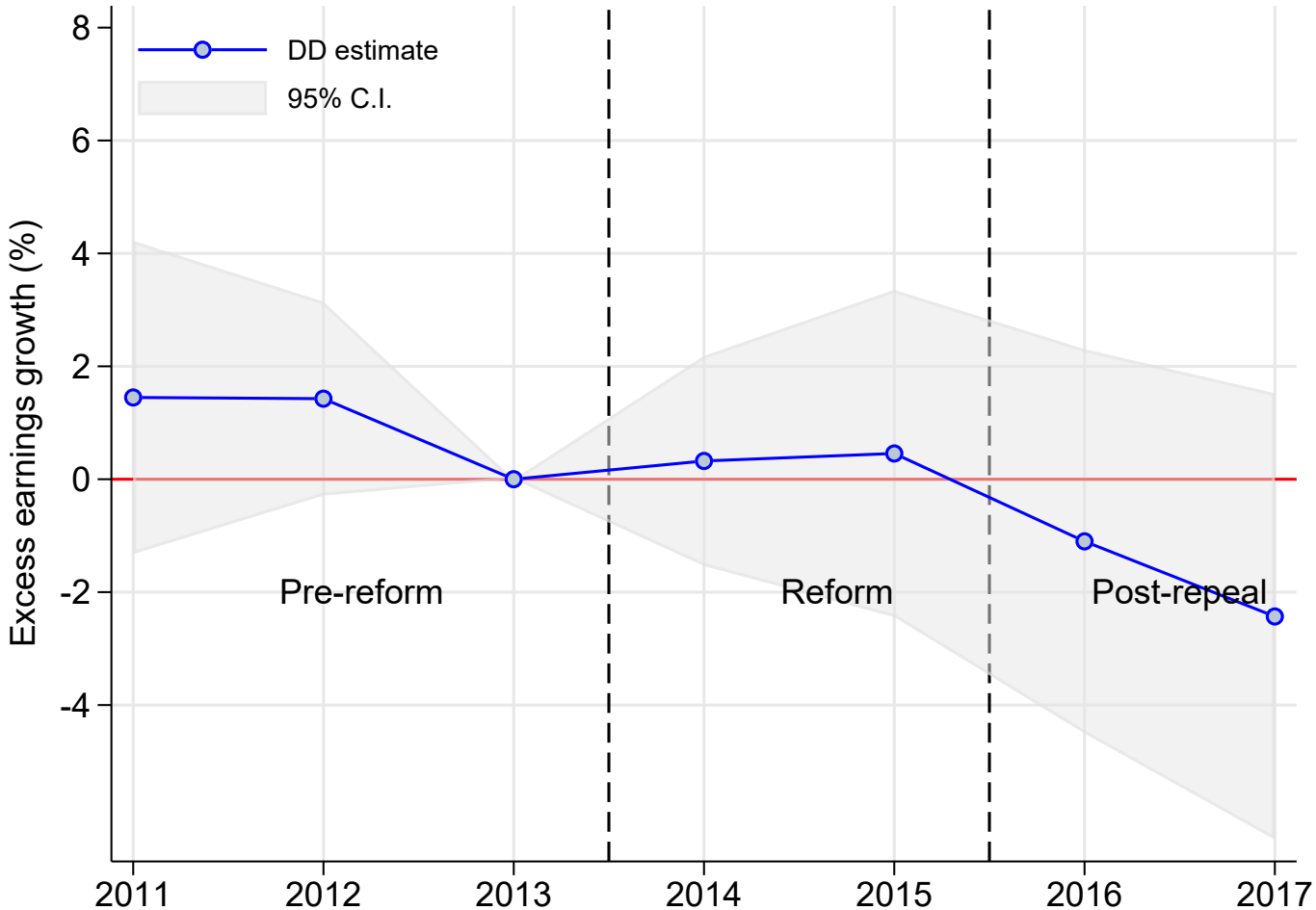
Executives and Managers
Fraction with positive wage earnings

Back

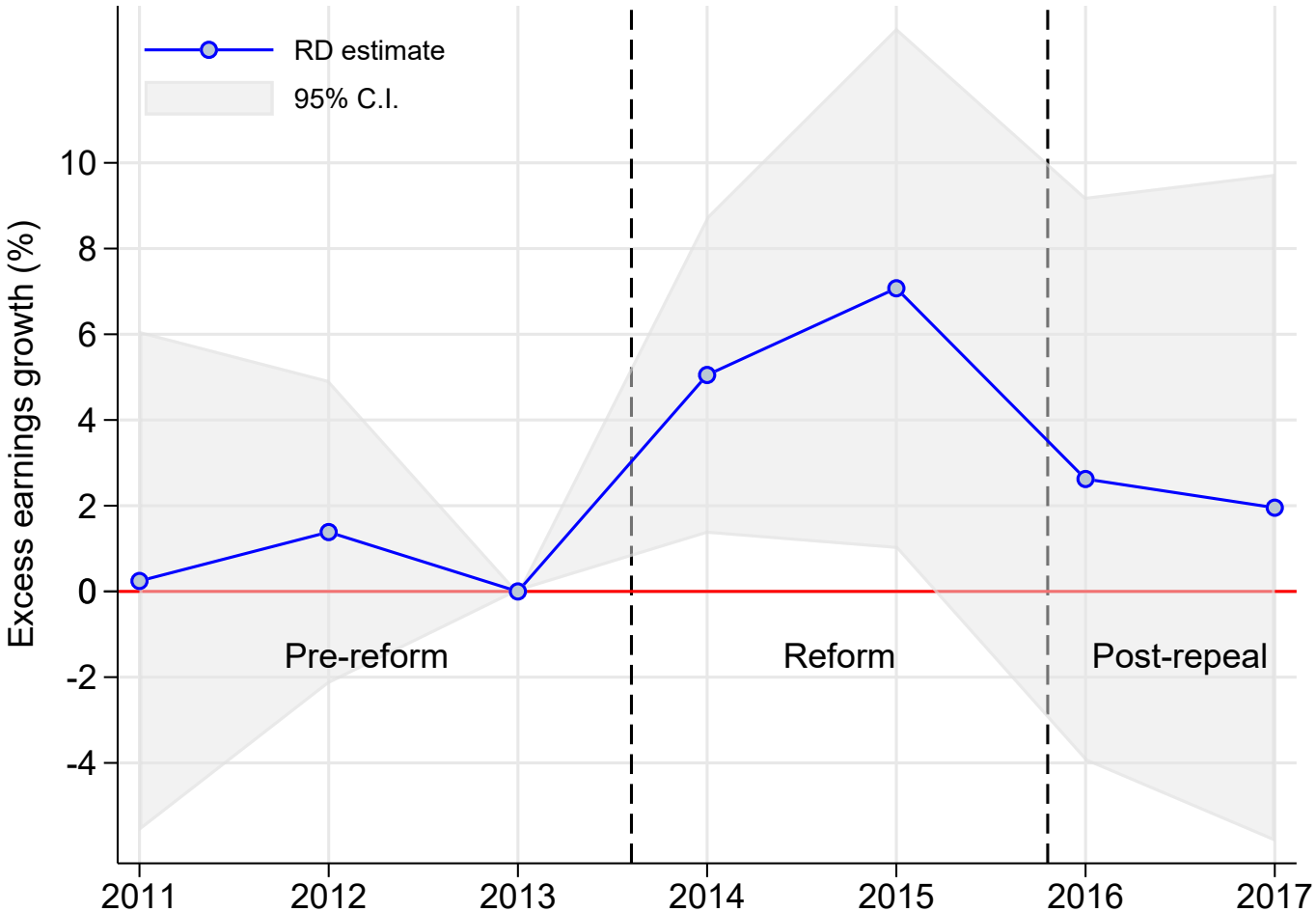


Executives and Managers
Placebo 16k-20k vs 20k-25k

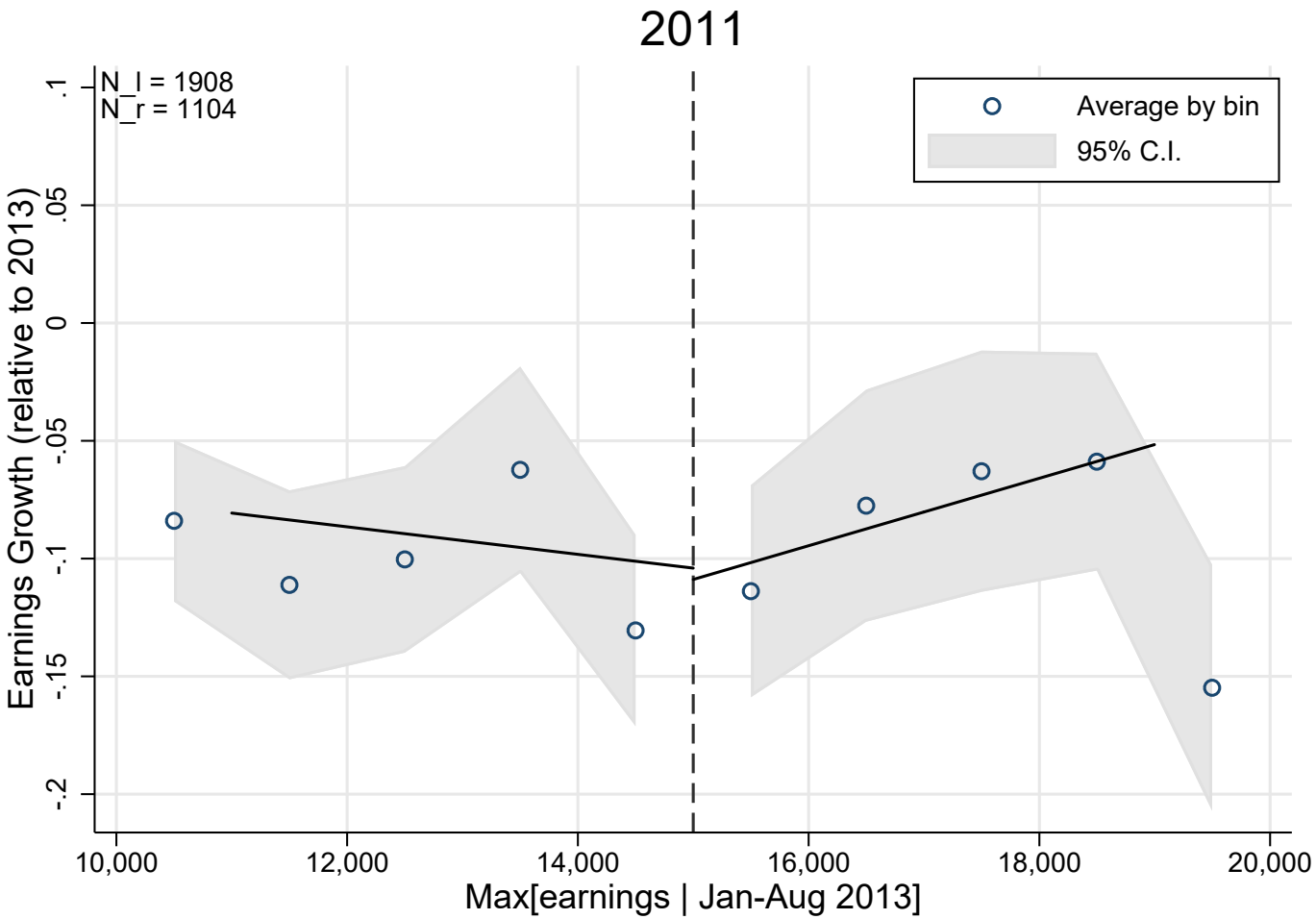
Back



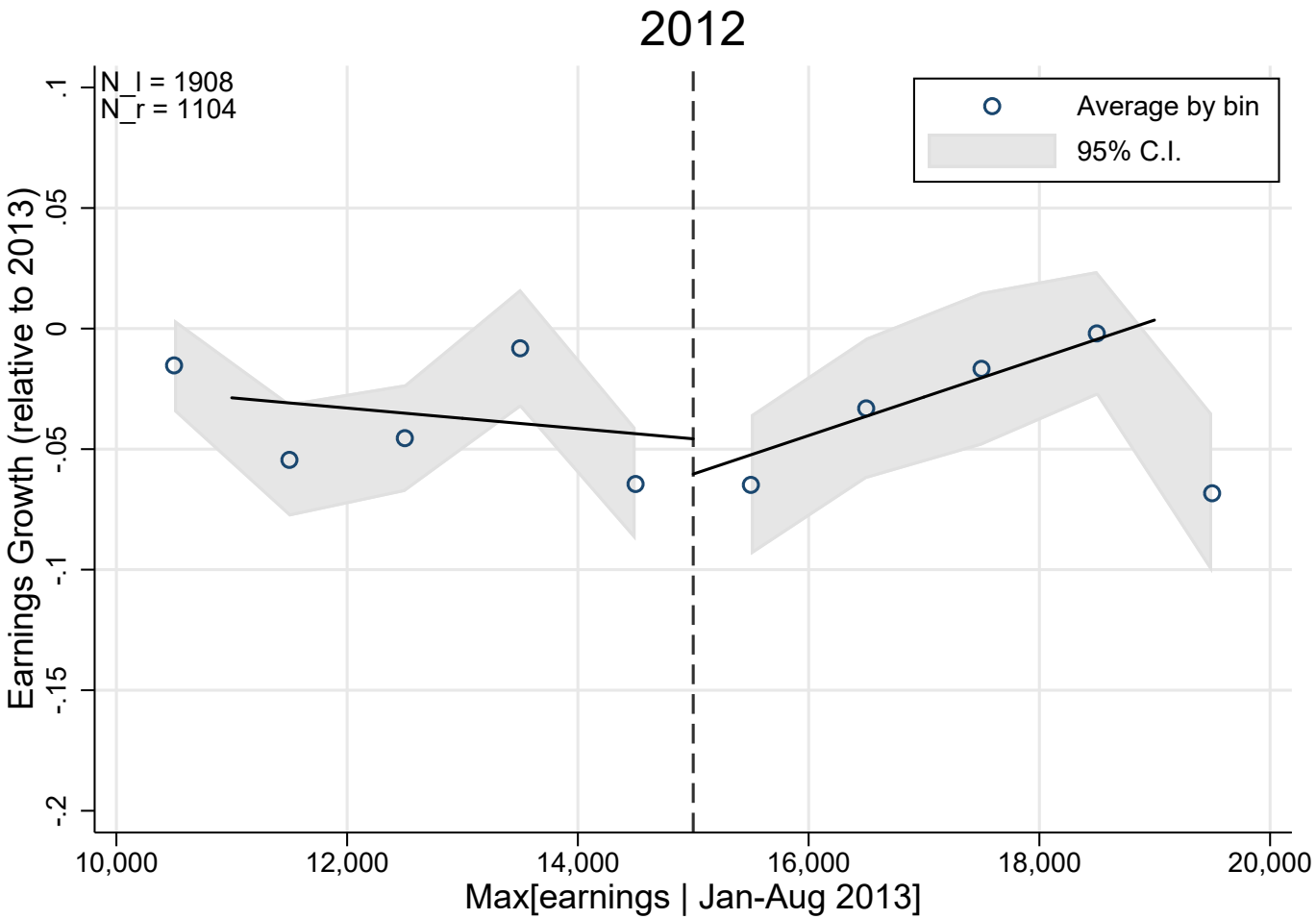
Executives and Managers
RD estimates Back



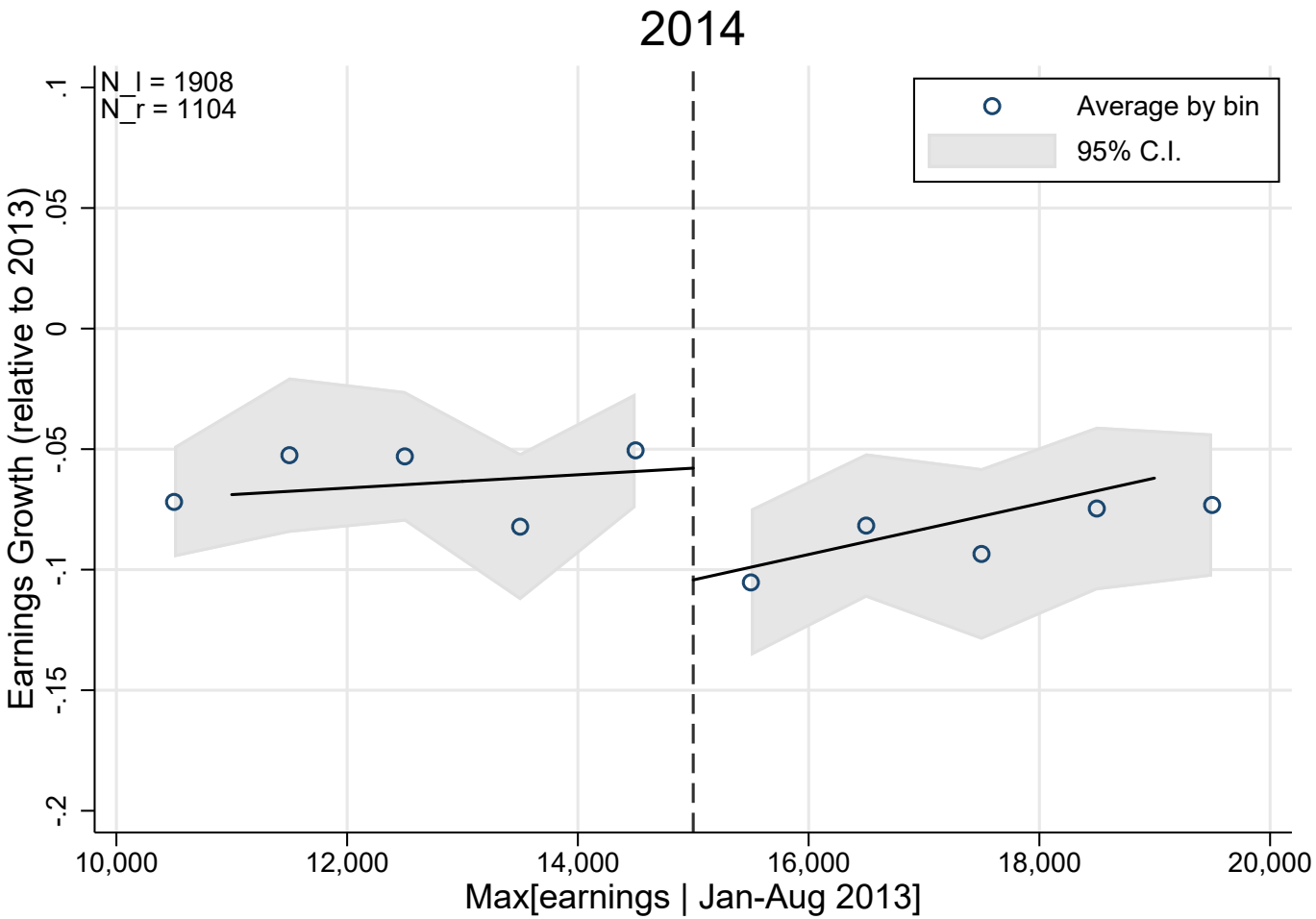
Executives and Managers
RD plot Back



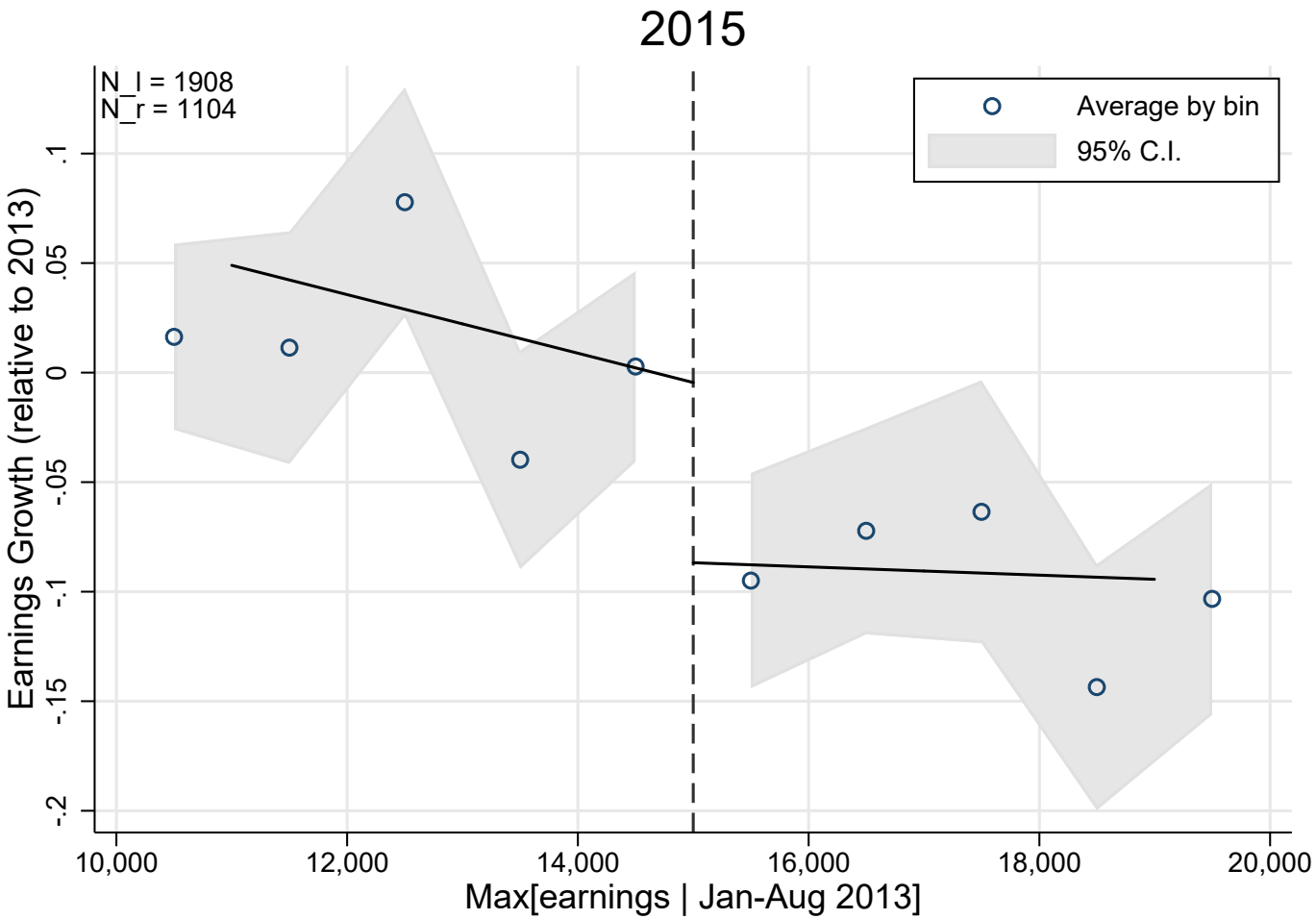
Executives and Managers
RD plot Back



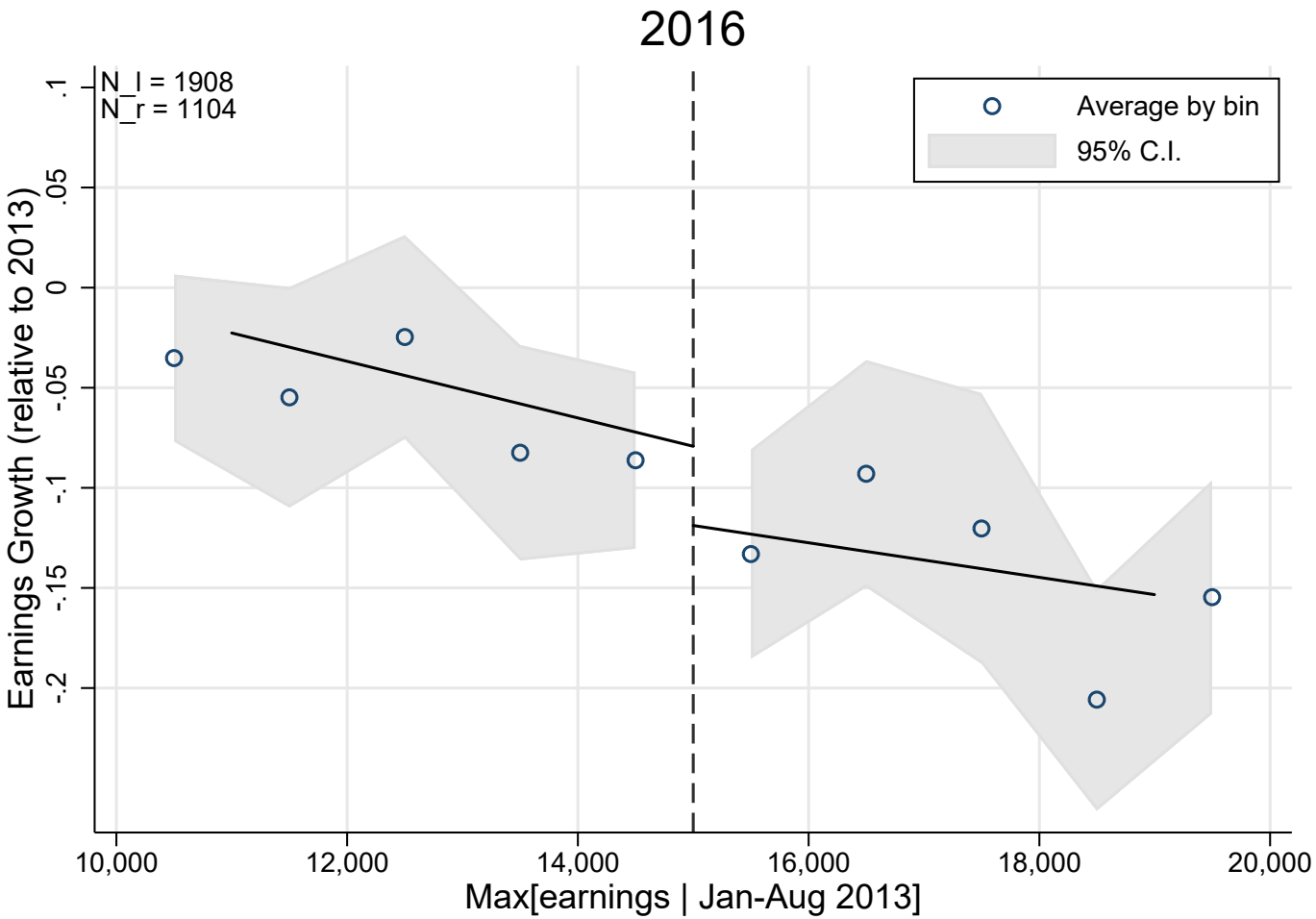
Executives and Managers
RD plot Back



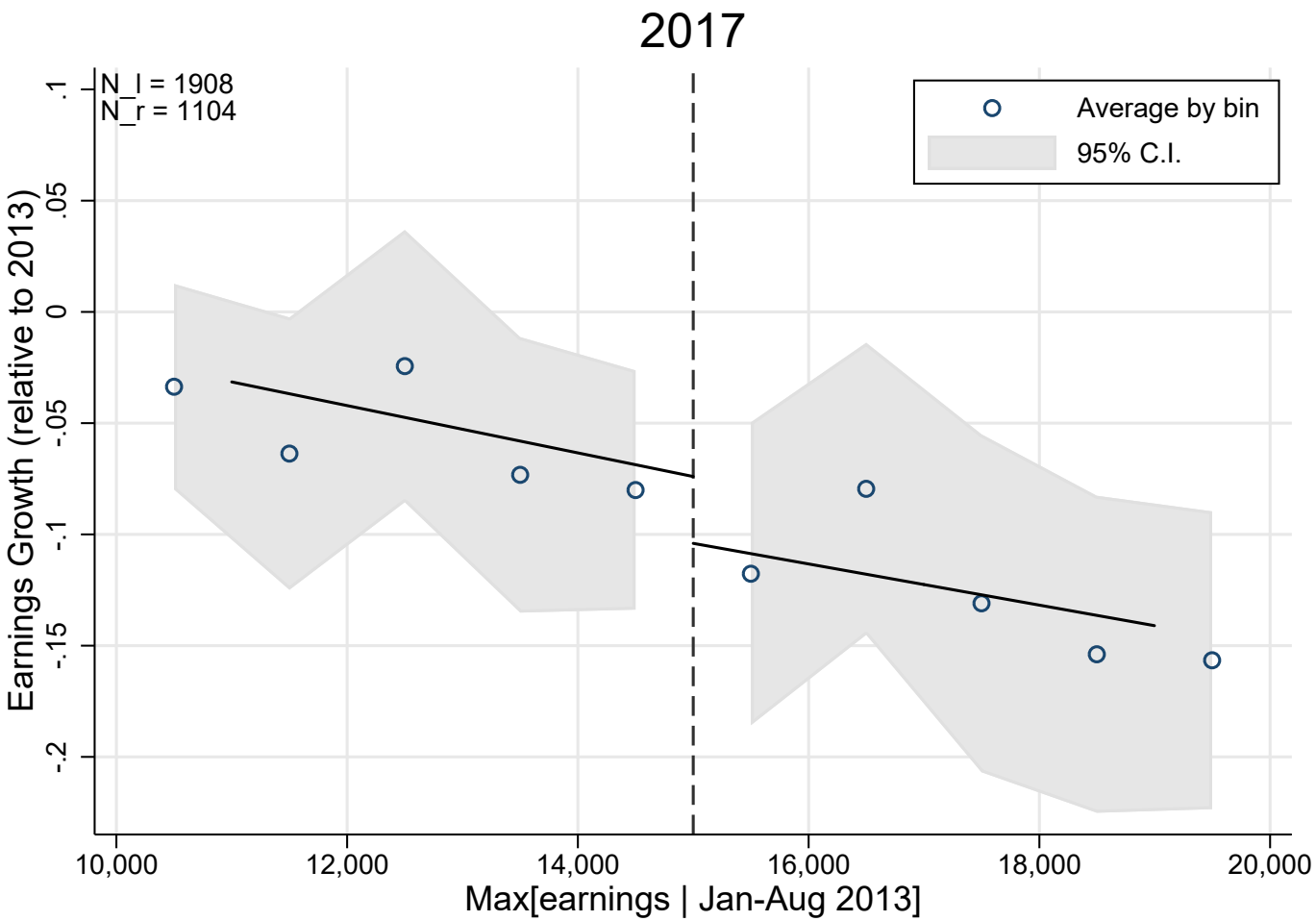
Executives and Managers
RD plot Back



Executives and Managers
RD plot Back

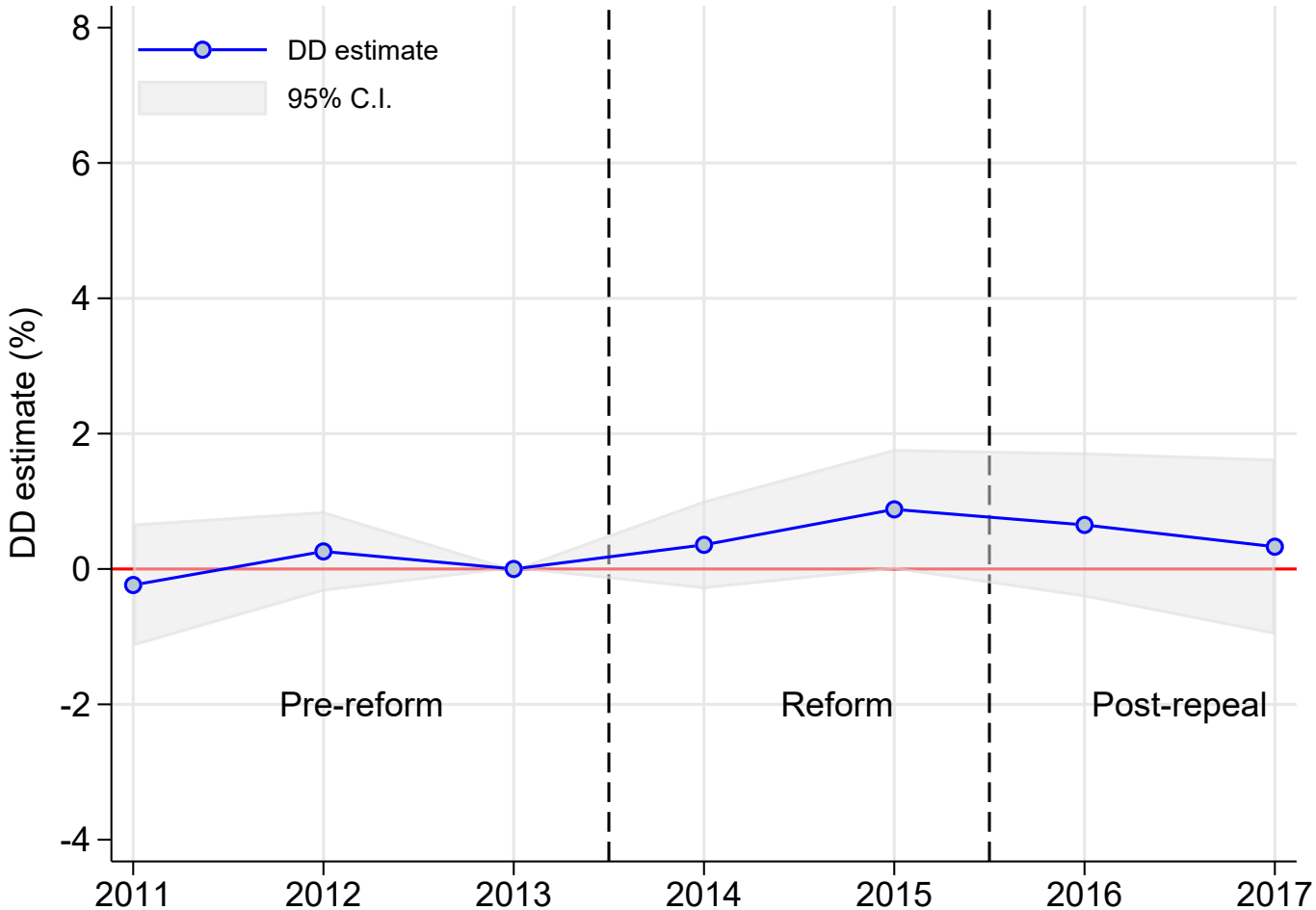


Executives and Managers
RD plot Back

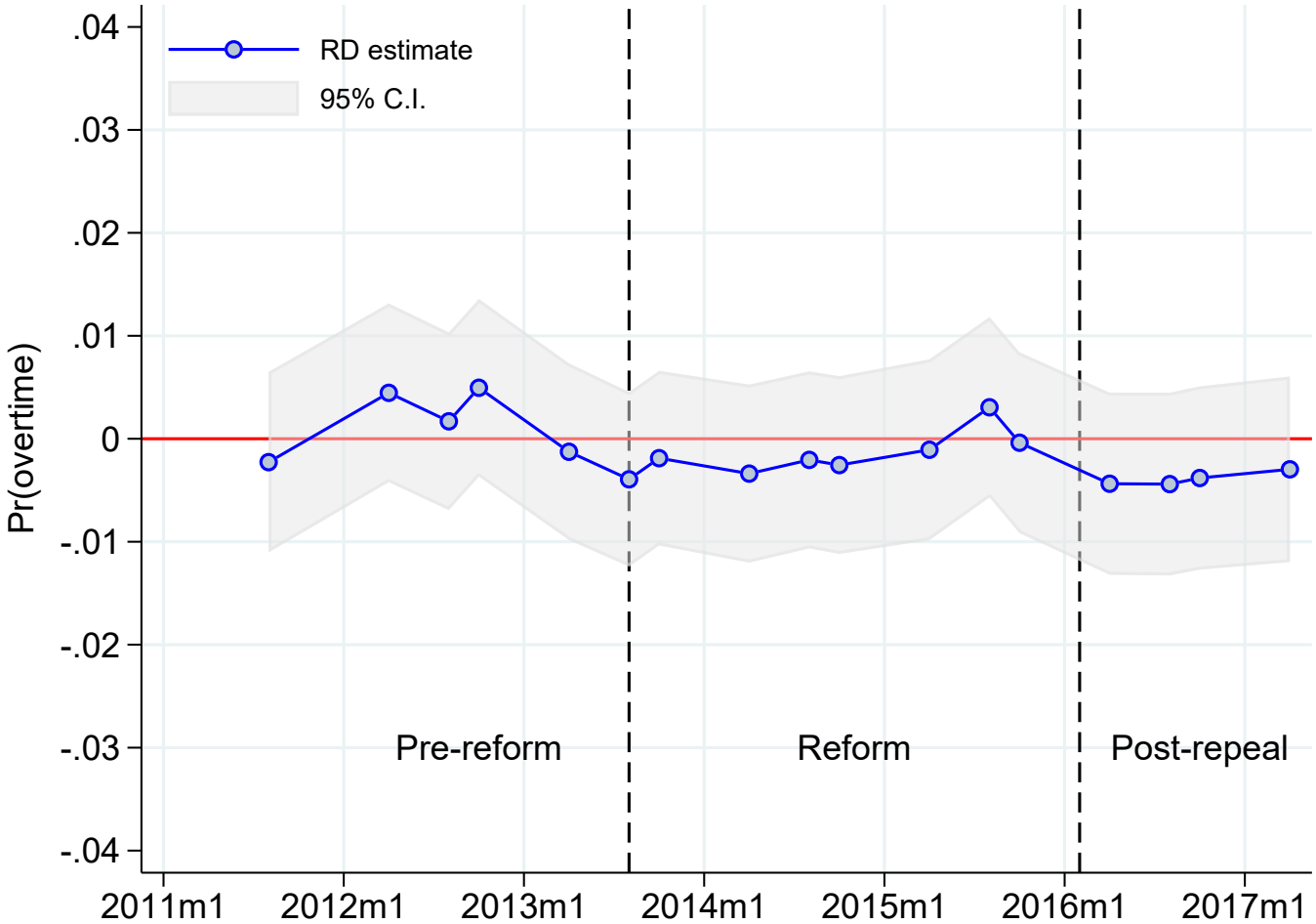


Executives and Managers
Wage bill per worker (leave-out mean)

Back



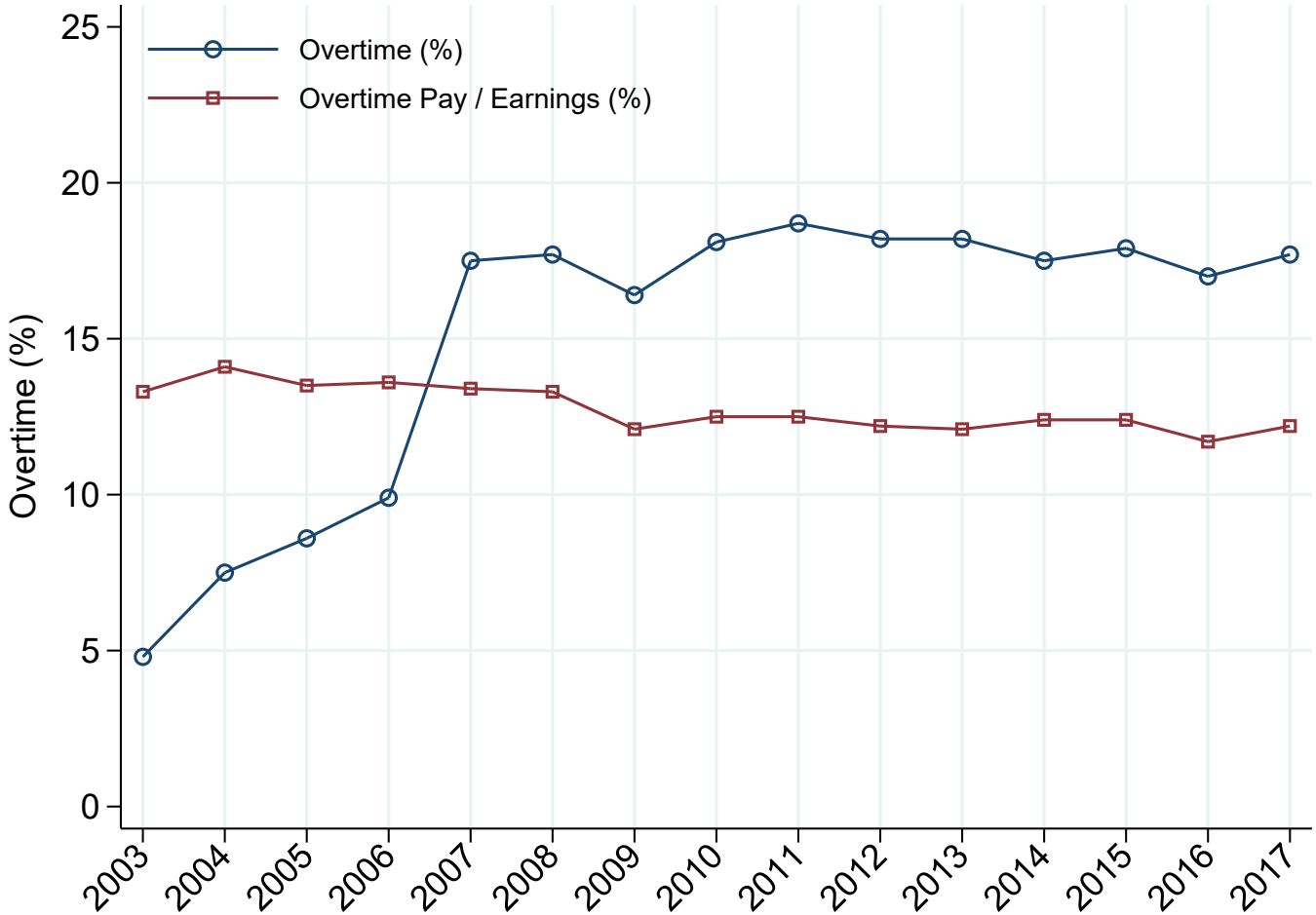
RD estimates for Prob(overtime) Back



Note: RD estimates for the fraction of workers doing overtime.

Overtime (fraction, average hours, income share)

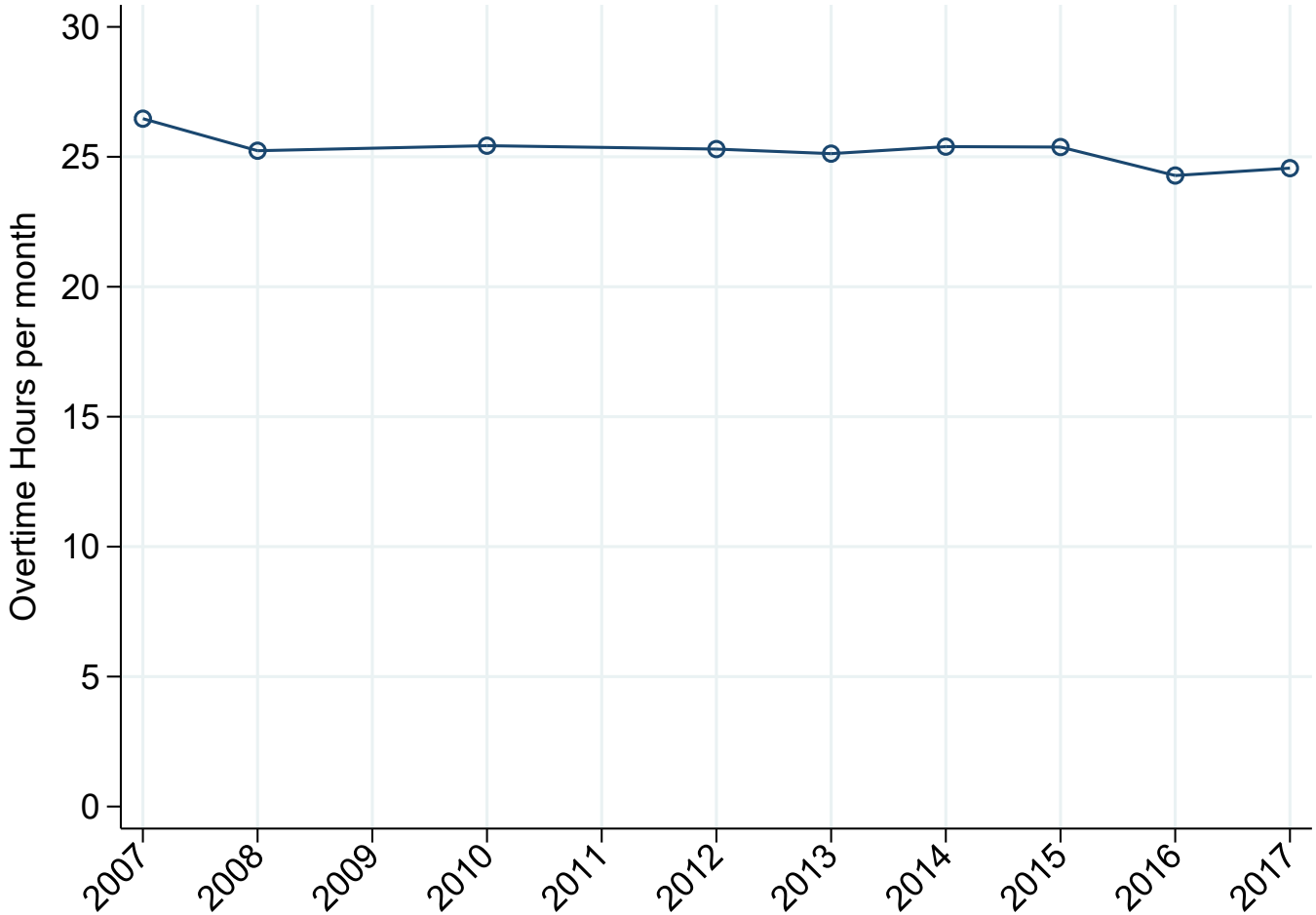
Back



Note: time series for overtime outcomes. Source: own based on SIPA microdata.

Overtime (fraction, average hours, income share)

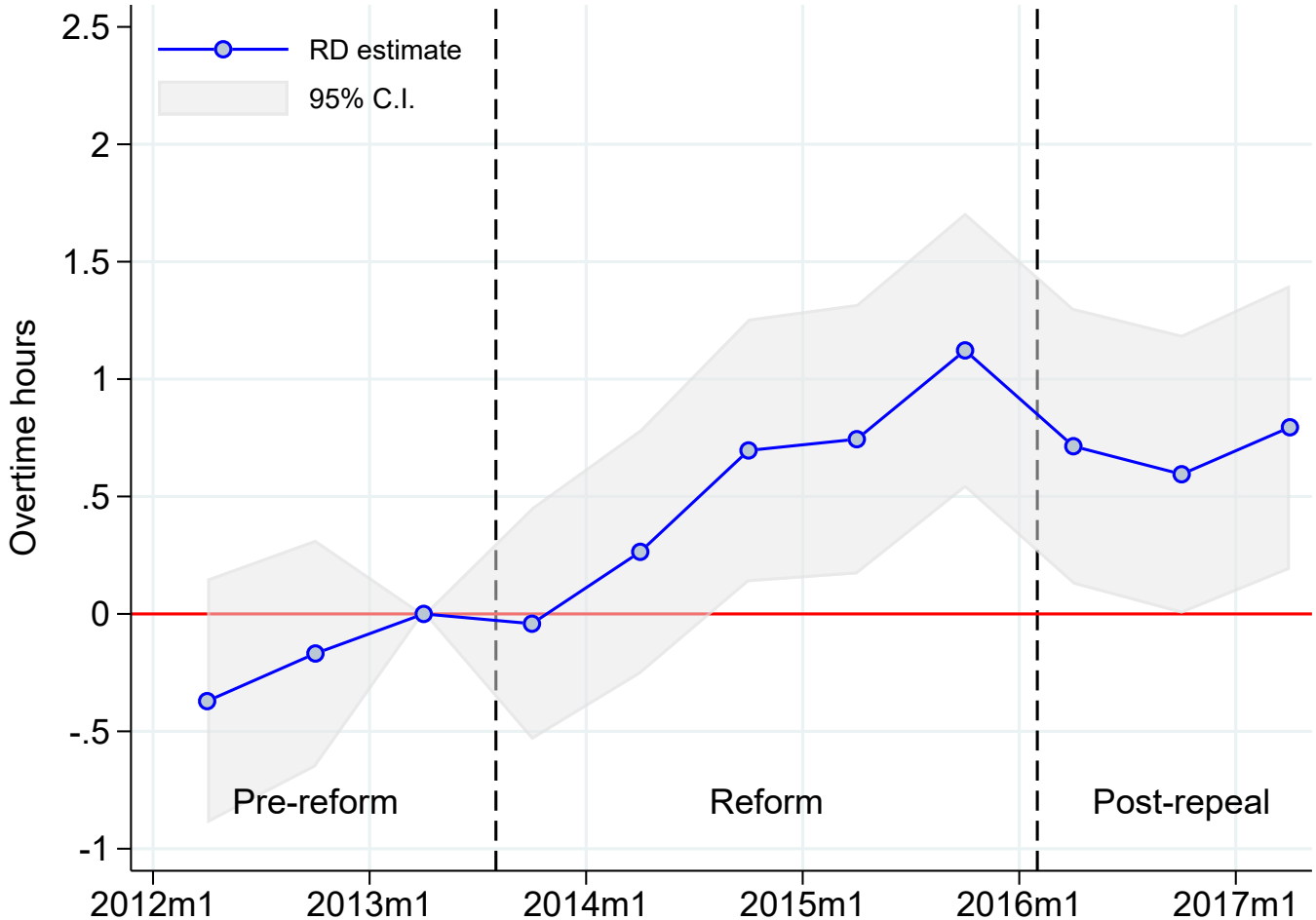
Back



Note: time series for overtime outcomes. Source: own based on SIPA microdata.

RD estimates for overtime hours per month

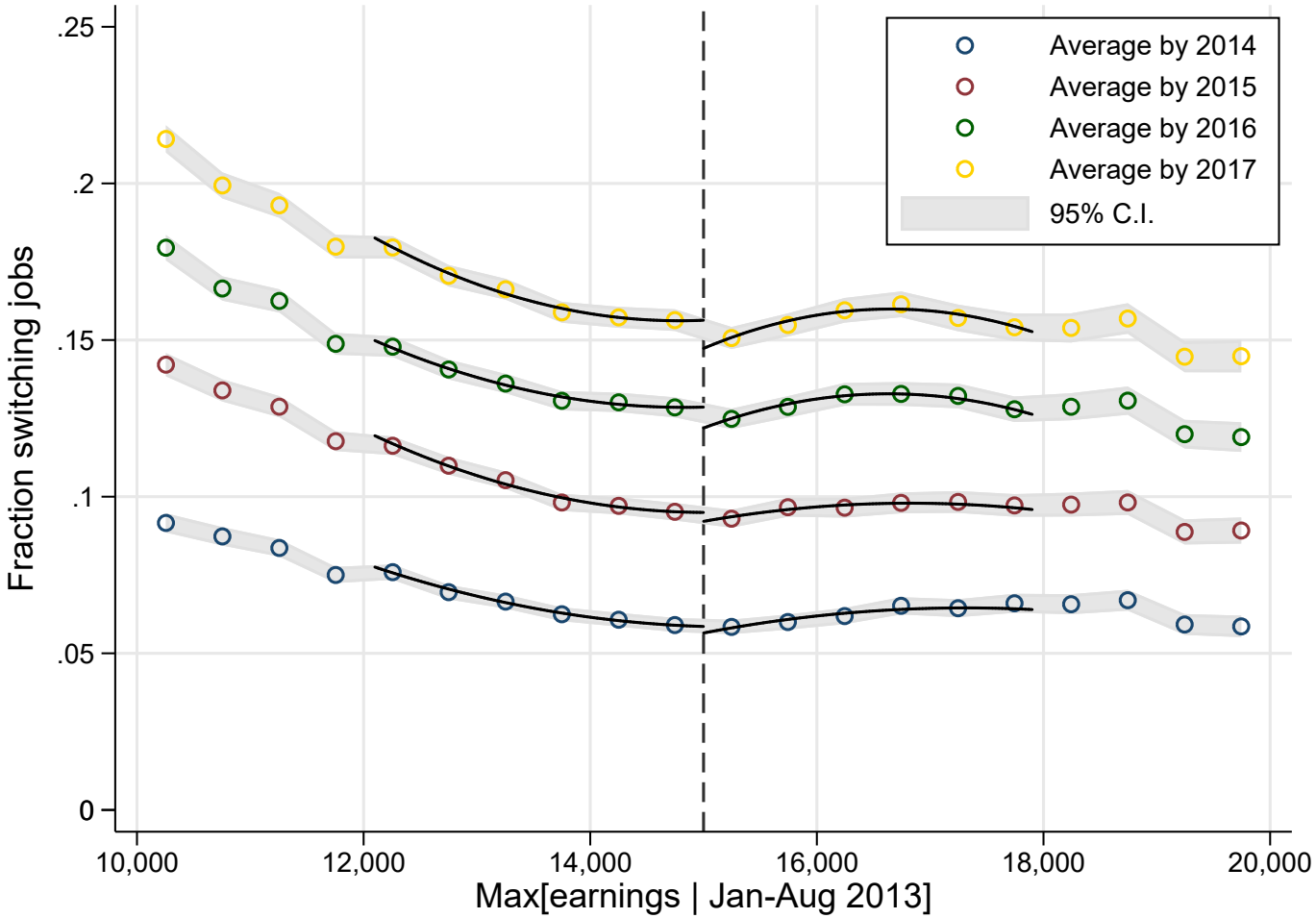
Back



Note: RD estimates for overtime hours relative to April'13.

Likelihood of switching jobs

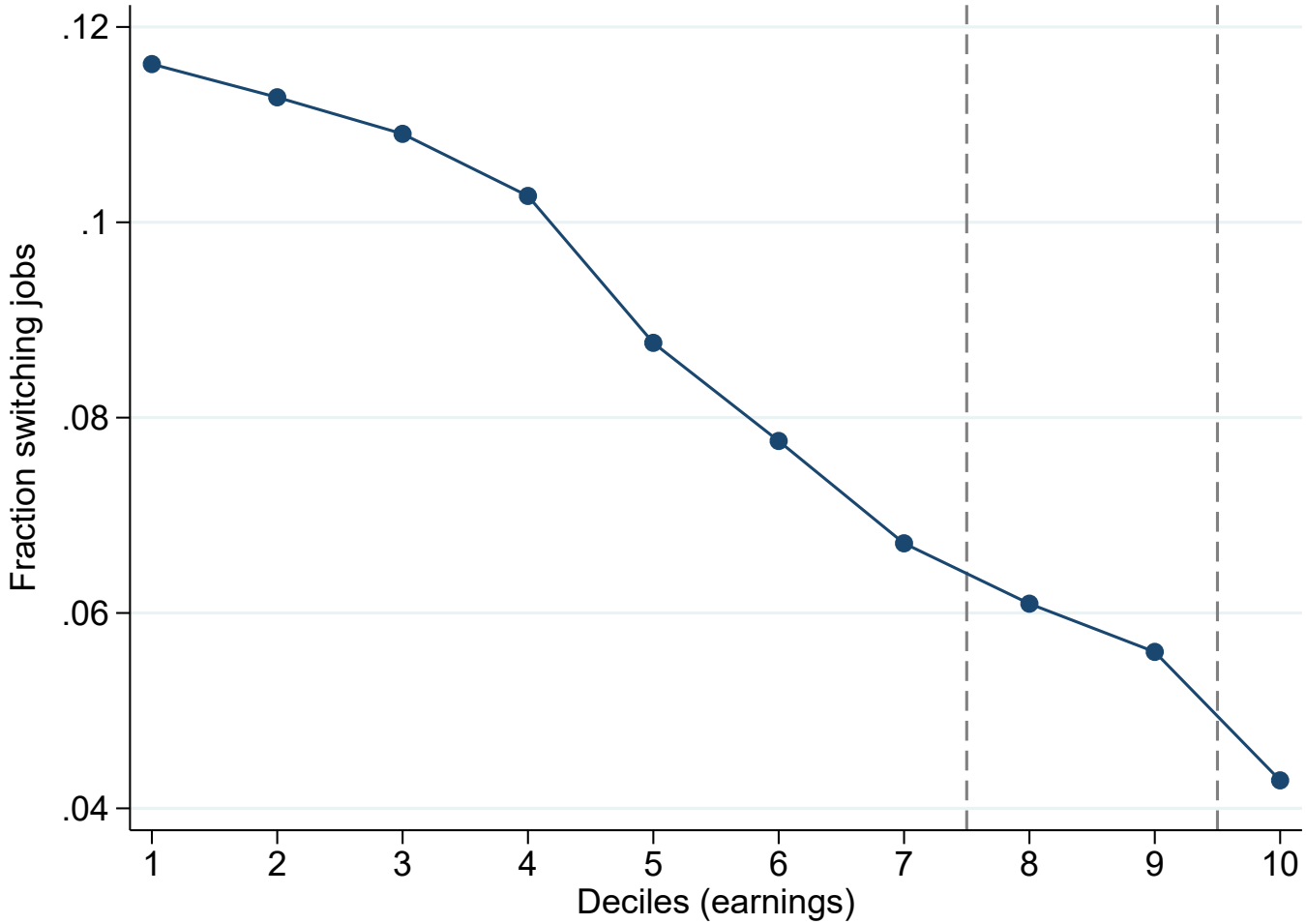
Back



Note: This figure shows the fraction of workers switching to a different job than the one in 2013 when the reform took place. We compute averages by bins of the running variable (width AR$ 500).

Likelihood of switching by deciles (pre-reform)

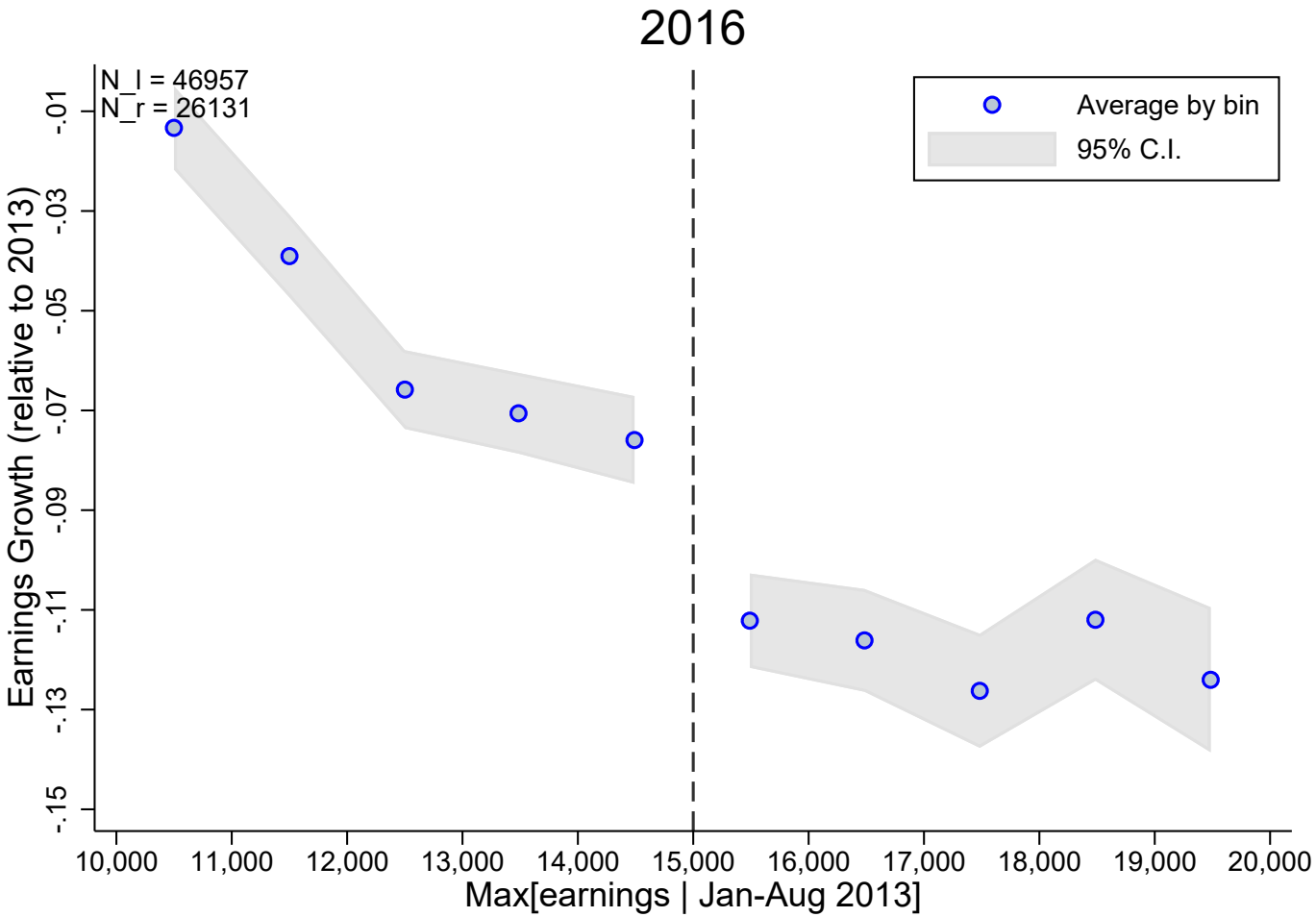
Back



Note: This figure shows the fraction of workers switching jobs between 2011 and 2013, before the reform. We compute averages by deciles of annual earnings in 2011.

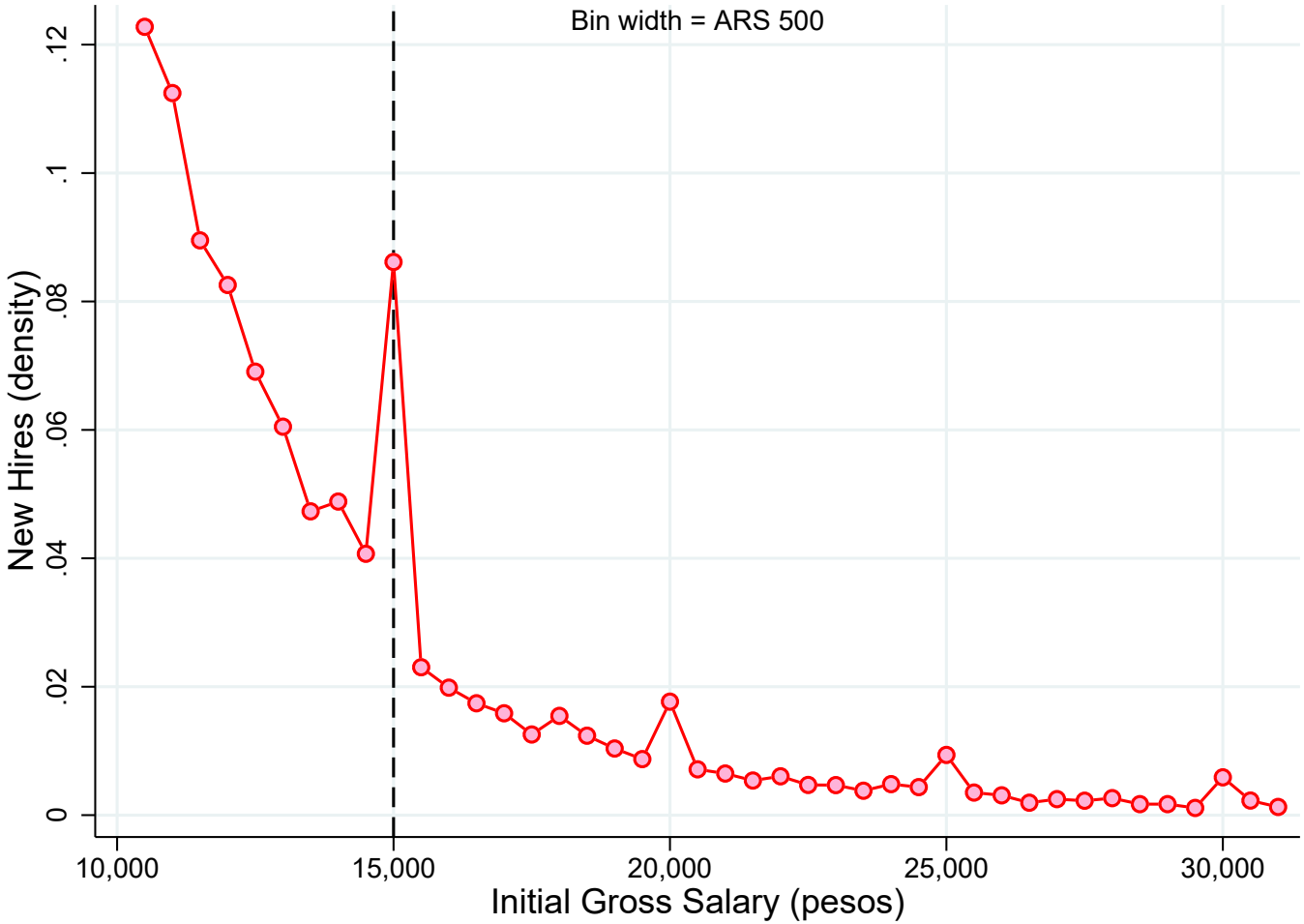
RD Switchers: earnings growth w.r.t. 2013

Back



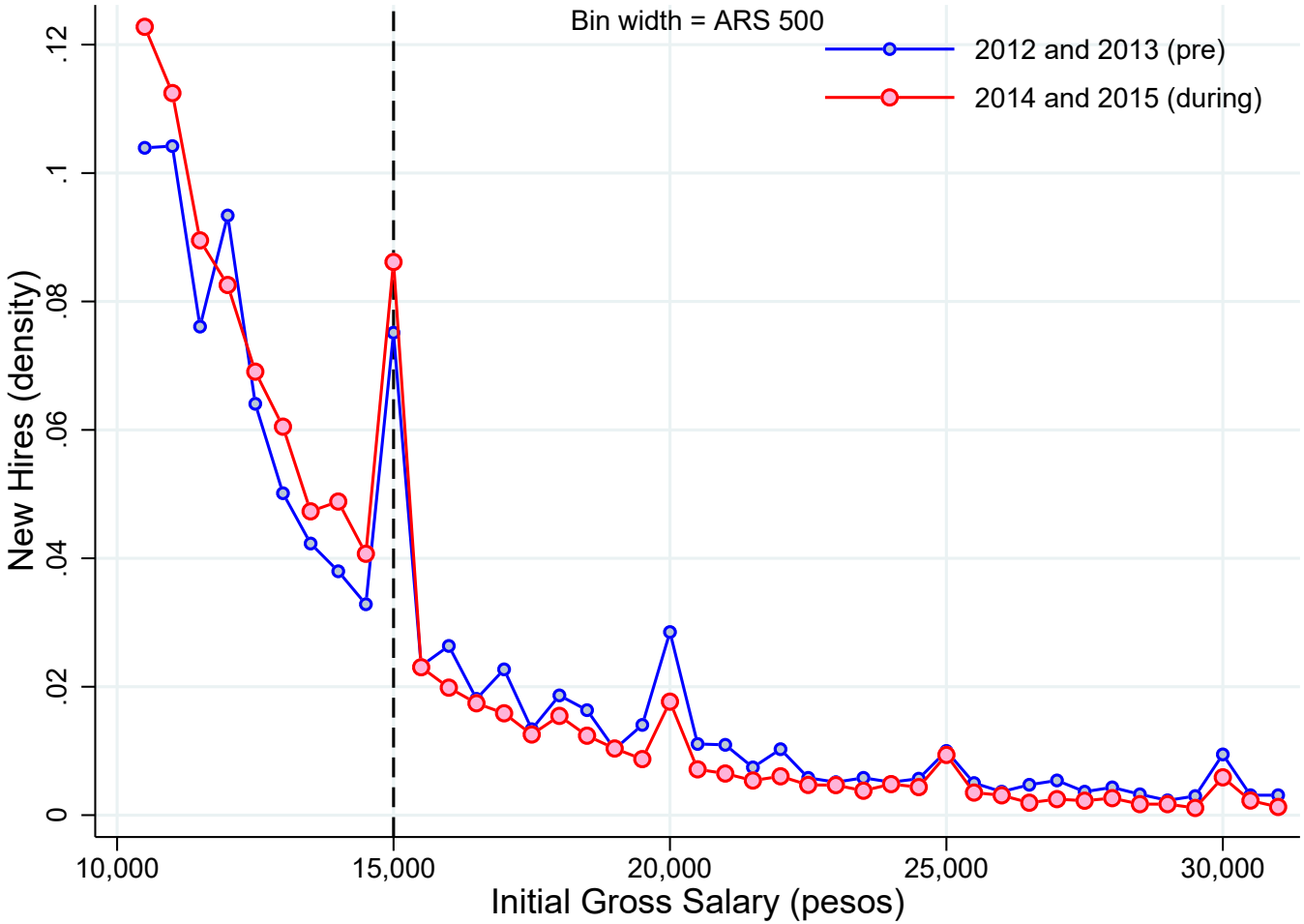
New Hires: relative frequency

Back



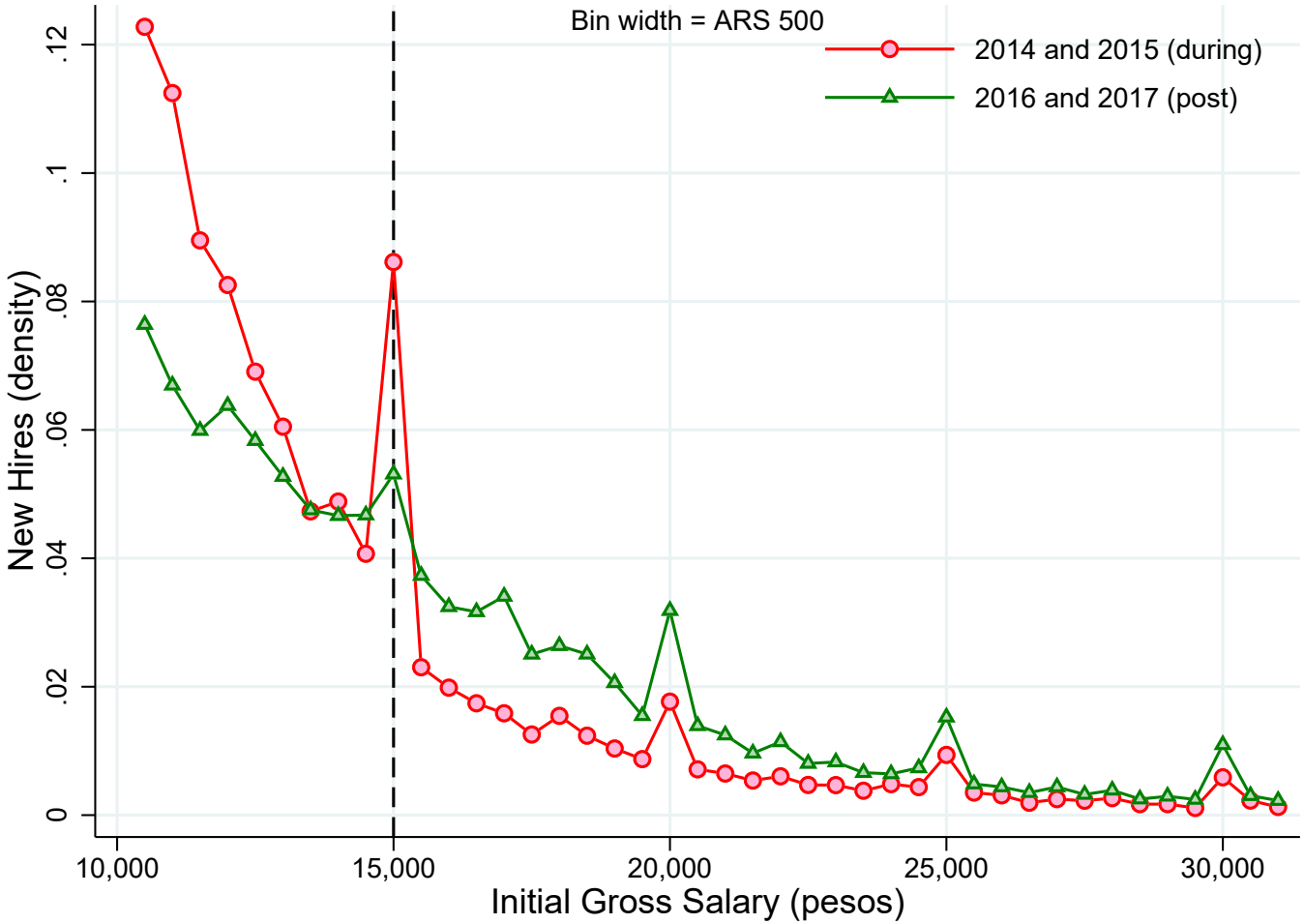
New Hires: relative frequency

Back



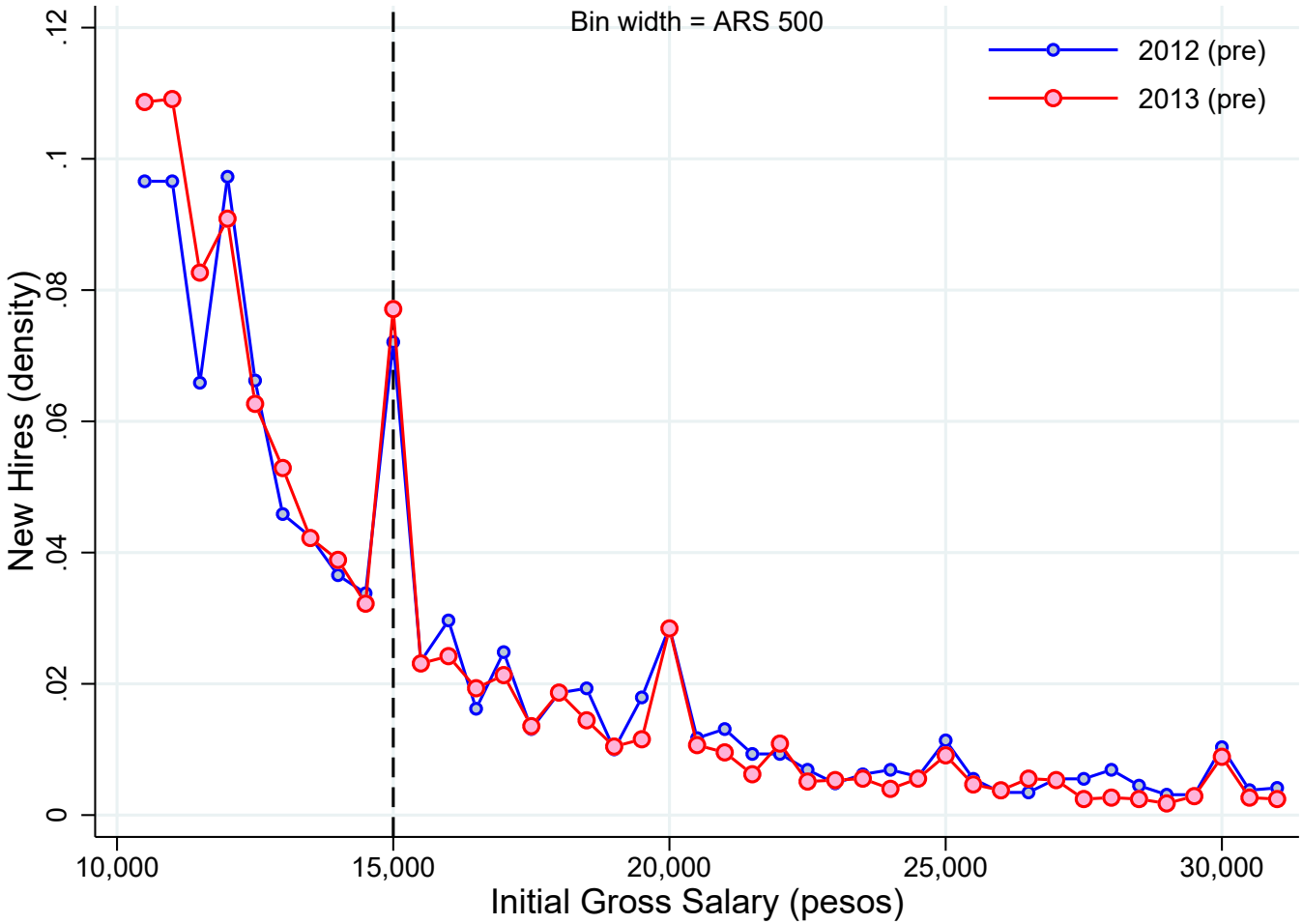
New Hires: relative frequency

Back



Entrants: 2012 vs 2013 (both years before the reform)

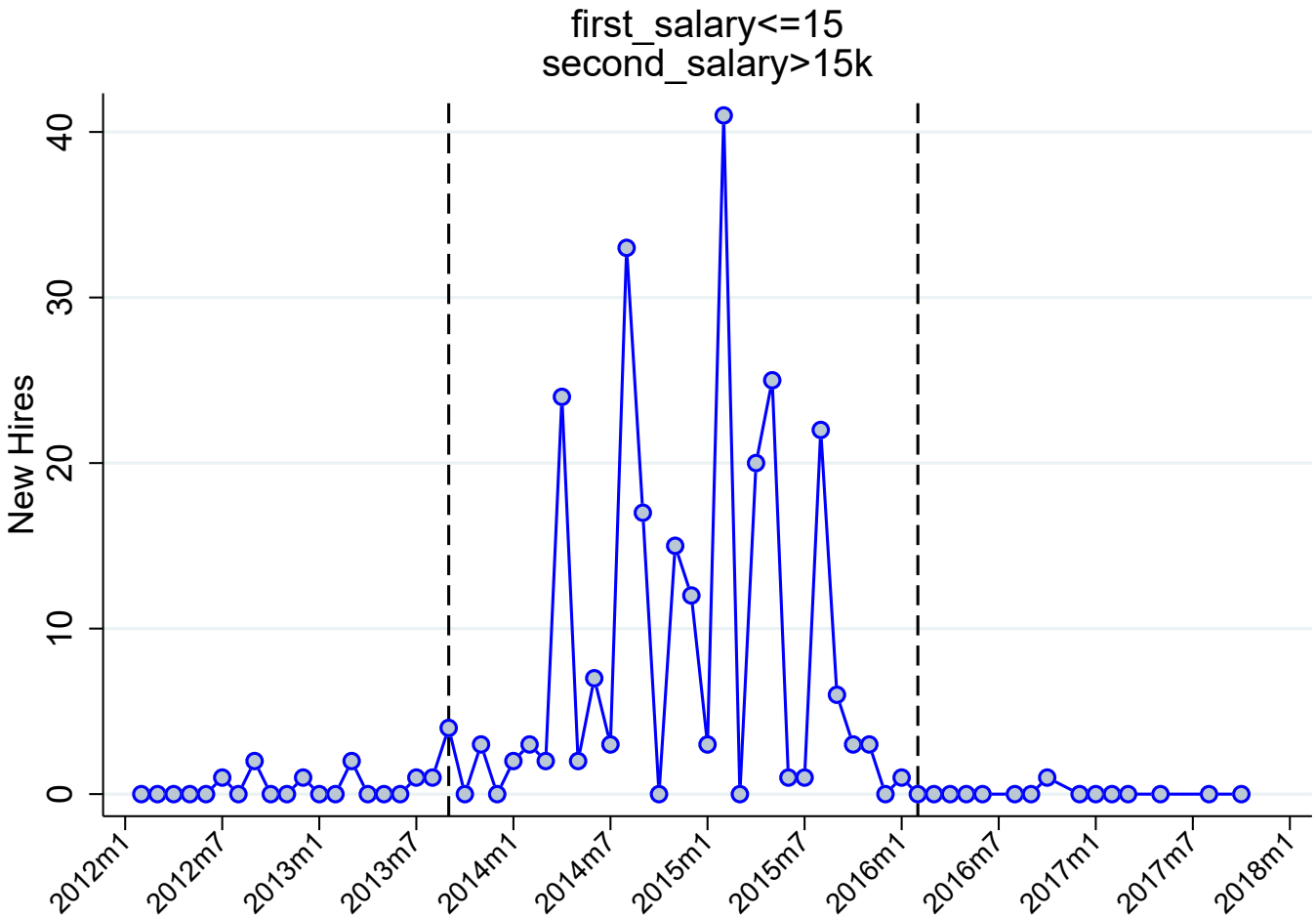
Back



First and second month of pay

Some cheating too, but not an aggregate phenomenon

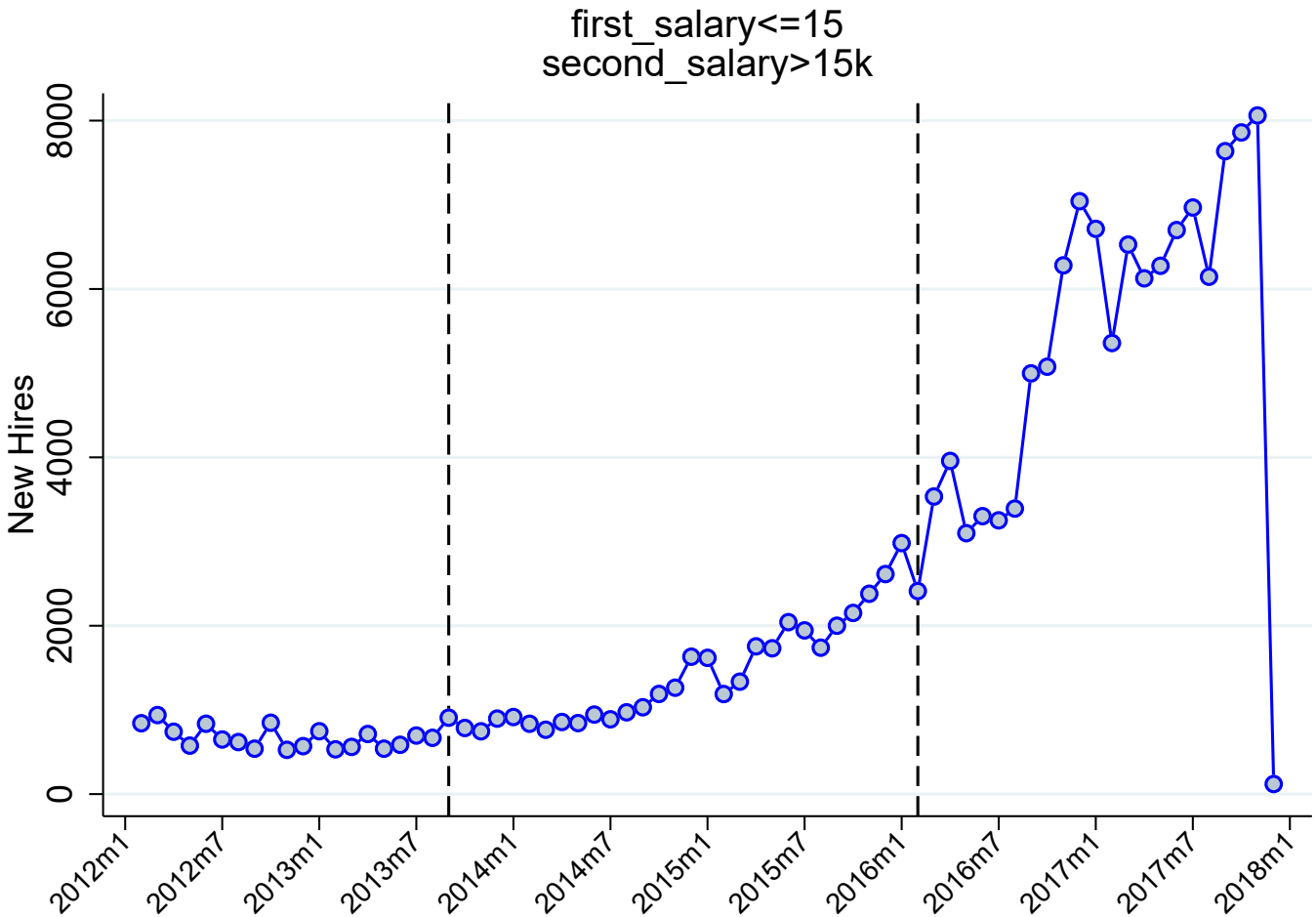
Entrants with 1st W$\leq 15k$ and 2nd W$> 15k$ Back



First and second month of pay

Some cheating too, but not an aggregate phenomenon

Entrants with 1st W$\leq 15k$ and 2nd W$> 15k$ Back

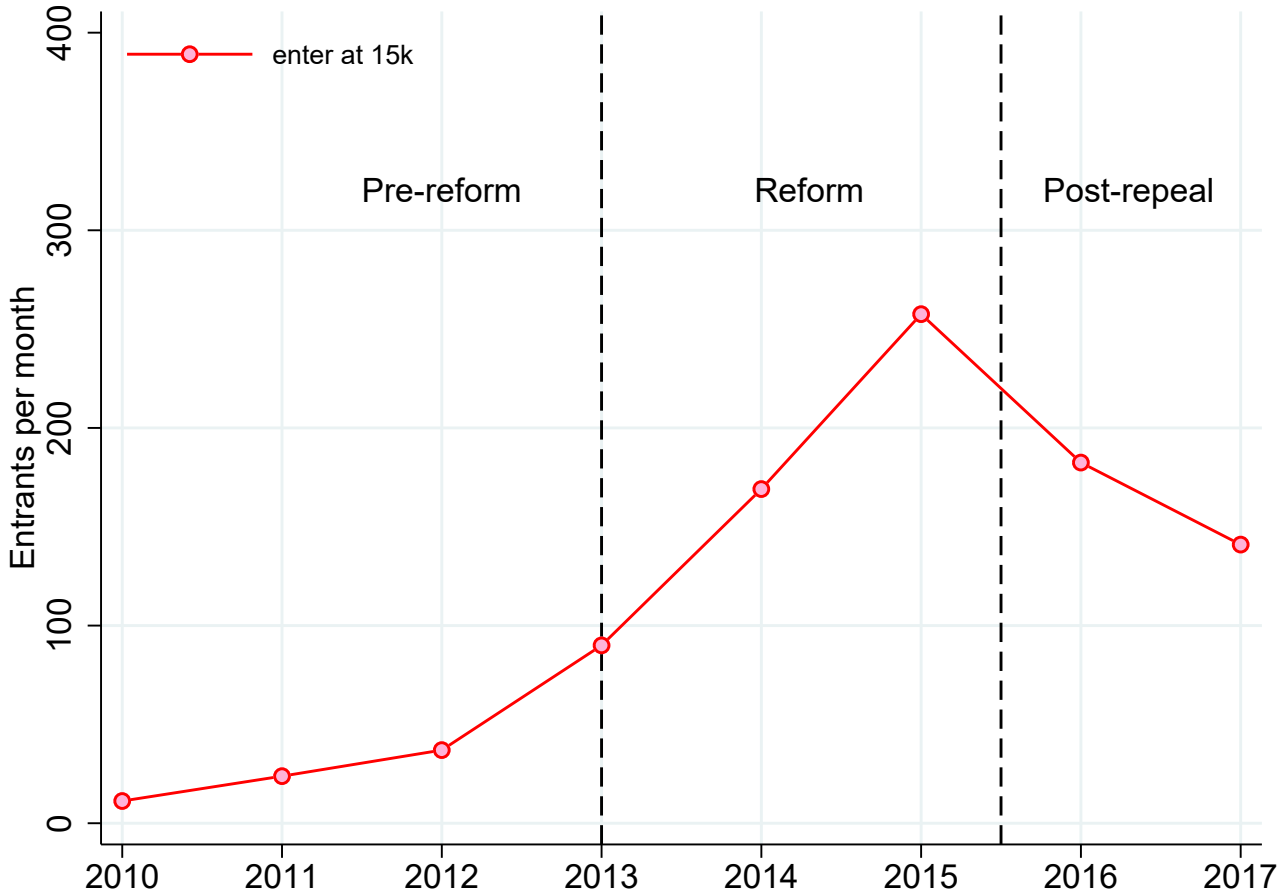


Zoom in on focal points

Back

More freq. at 15k that shifts to 20k (driven by managers)

Entrants with initial monthly salary exactly at 10k, 15k, 20k, 25k



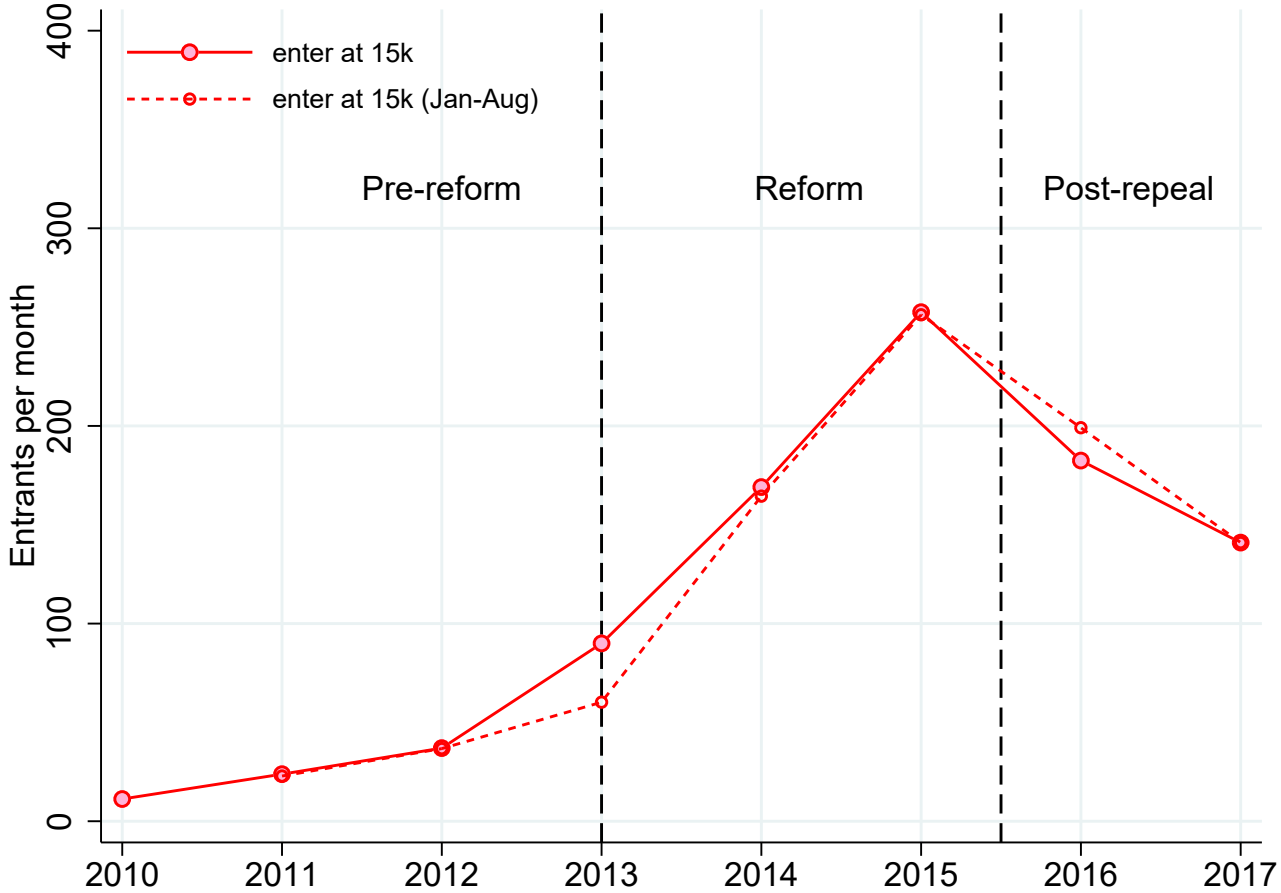
Managers vs rest

Zoom in on focal points

Back

More freq. at 15k that shifts to 20k (driven by managers)

Entrants with initial monthly salary exactly at 10k, 15k, 20k, 25k



Managers vs rest

Zoom in on focal points

Back

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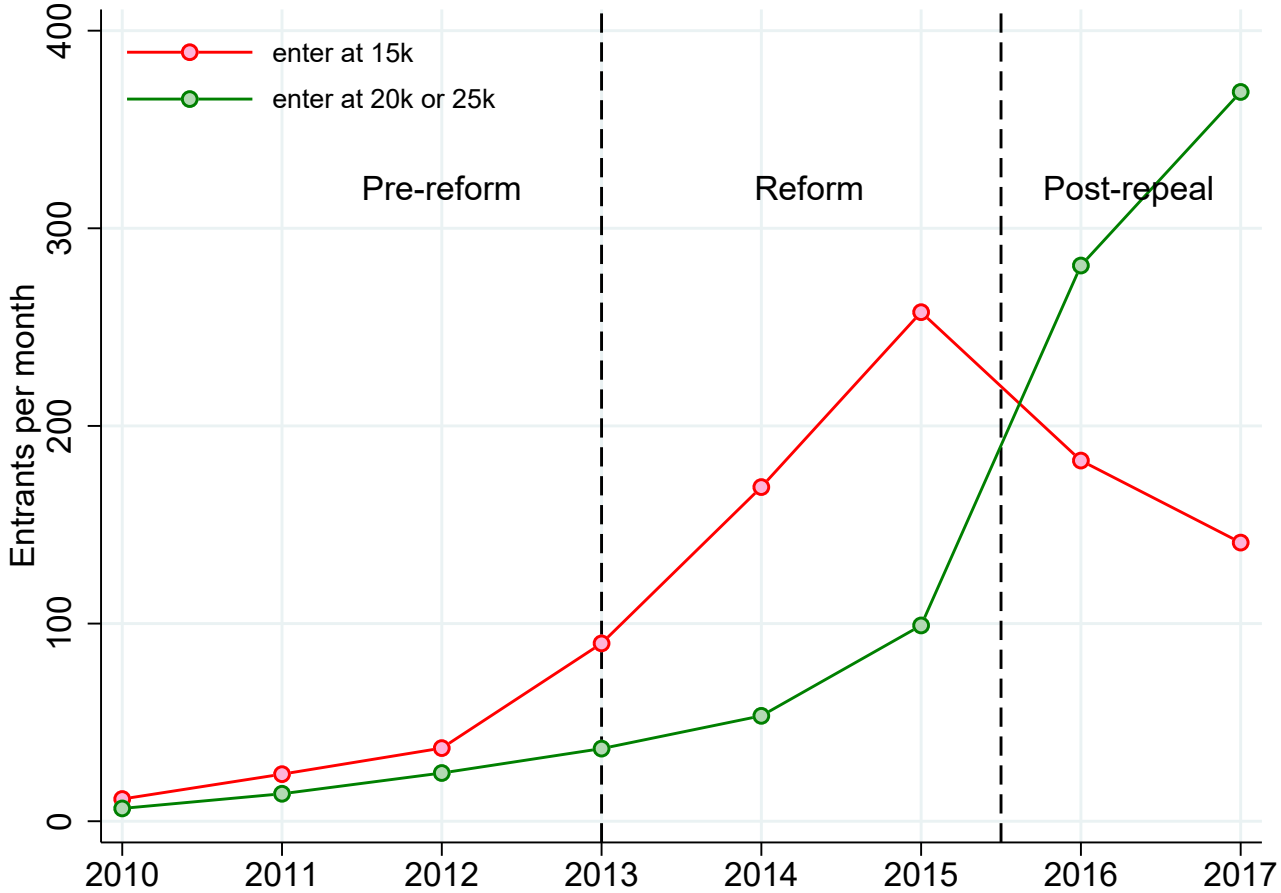

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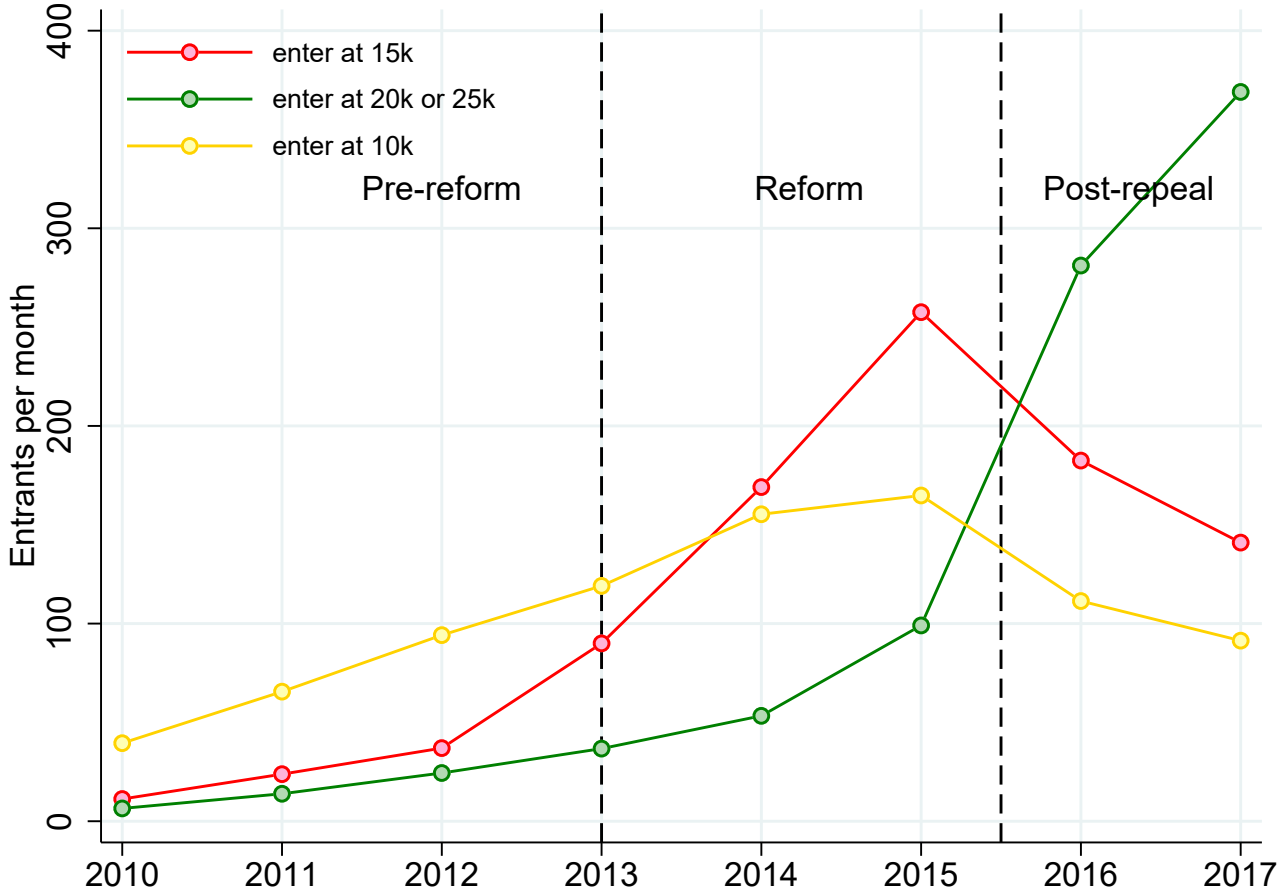

Managers vs rest

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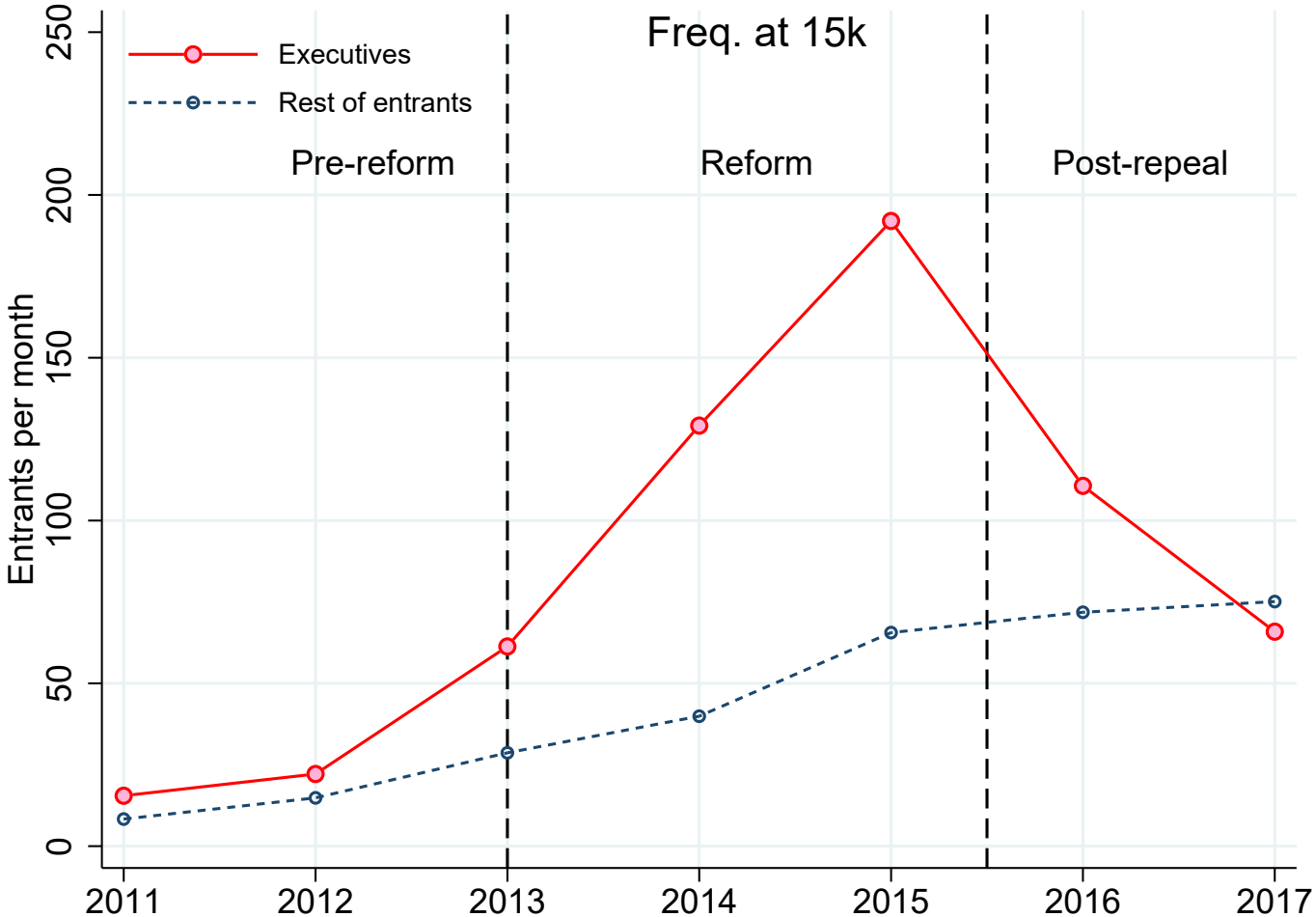
Back



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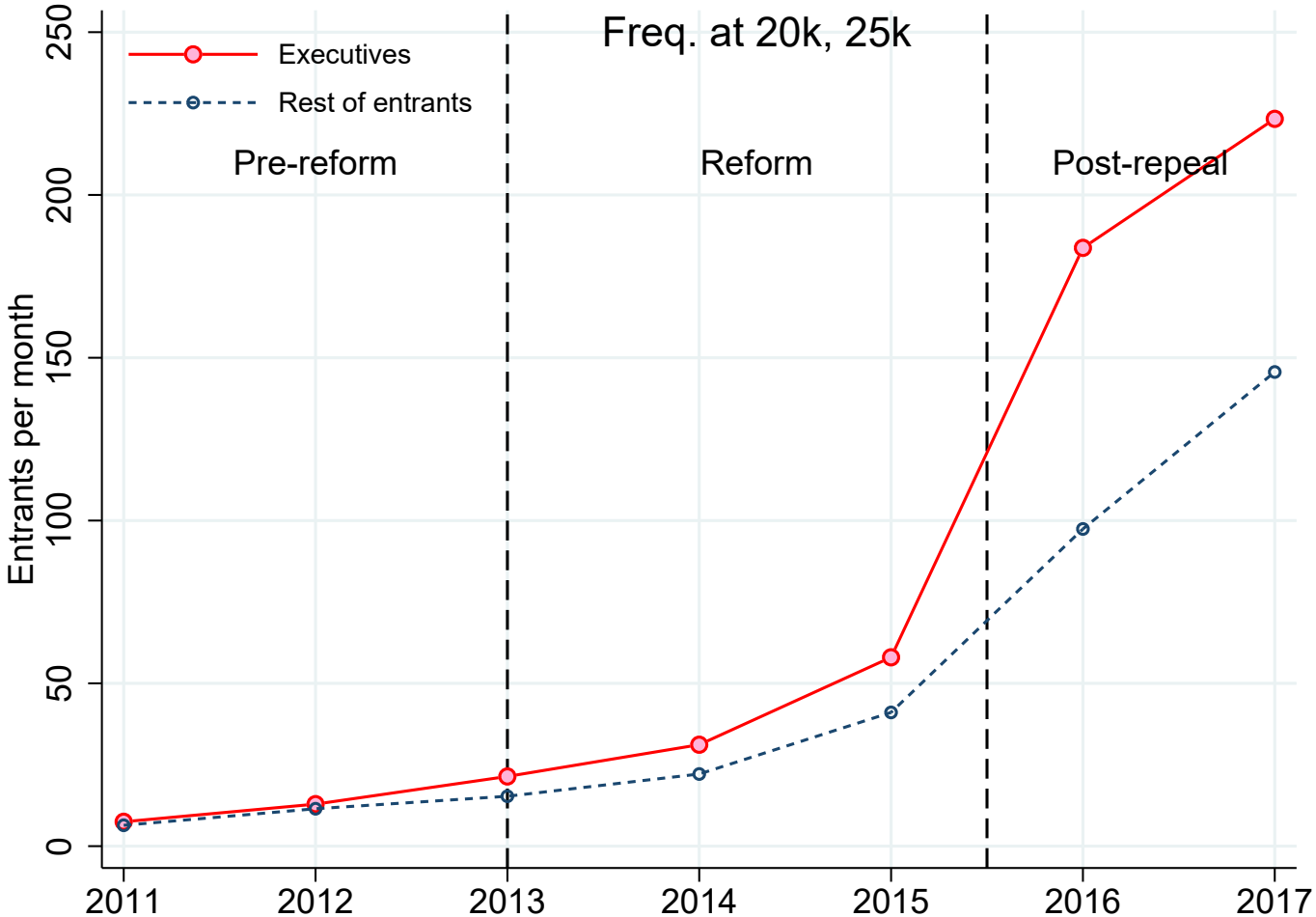
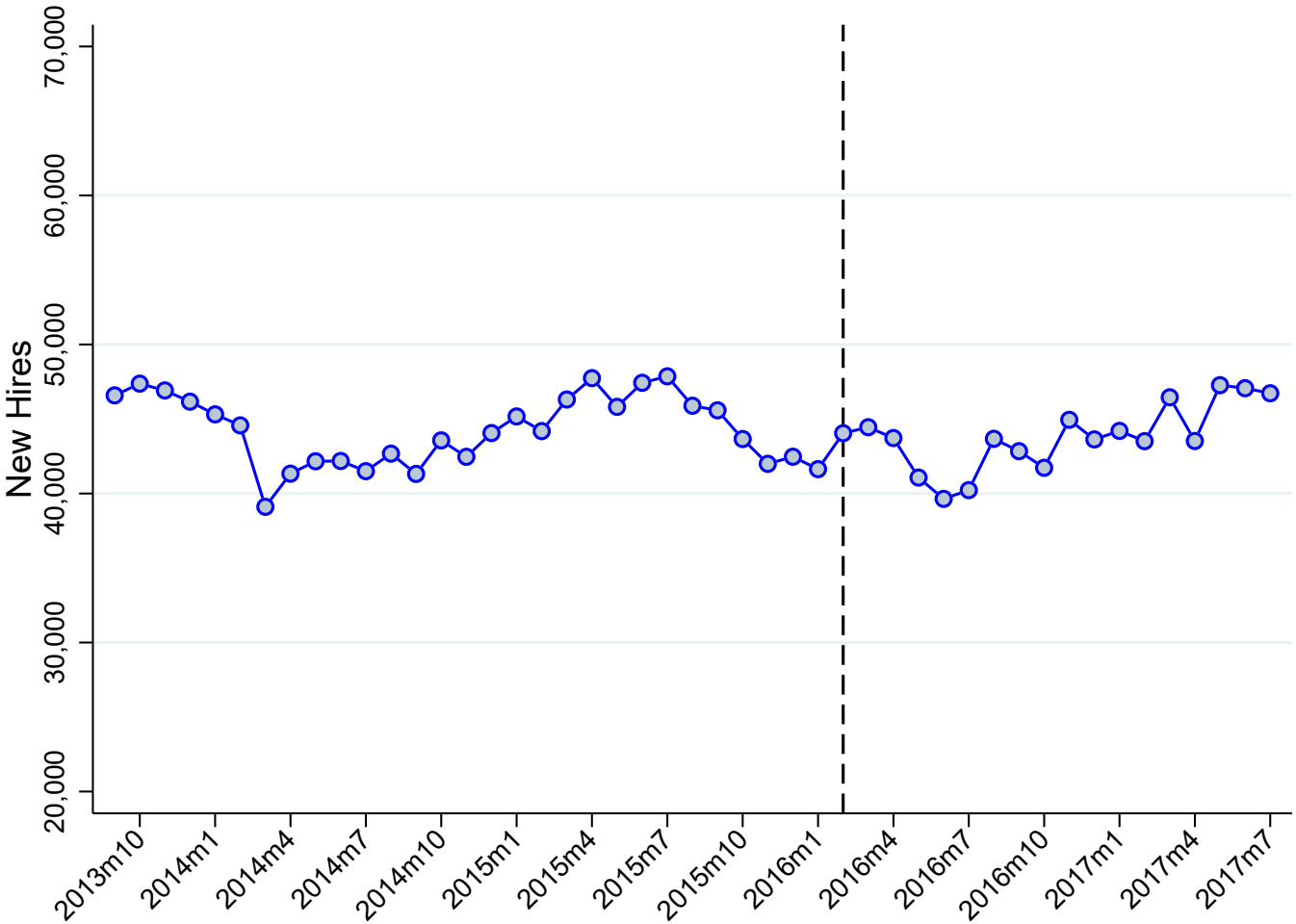


Employment effects?

No employment effects, just reallocation of entering zone

Average entrants per month (freq.) Back



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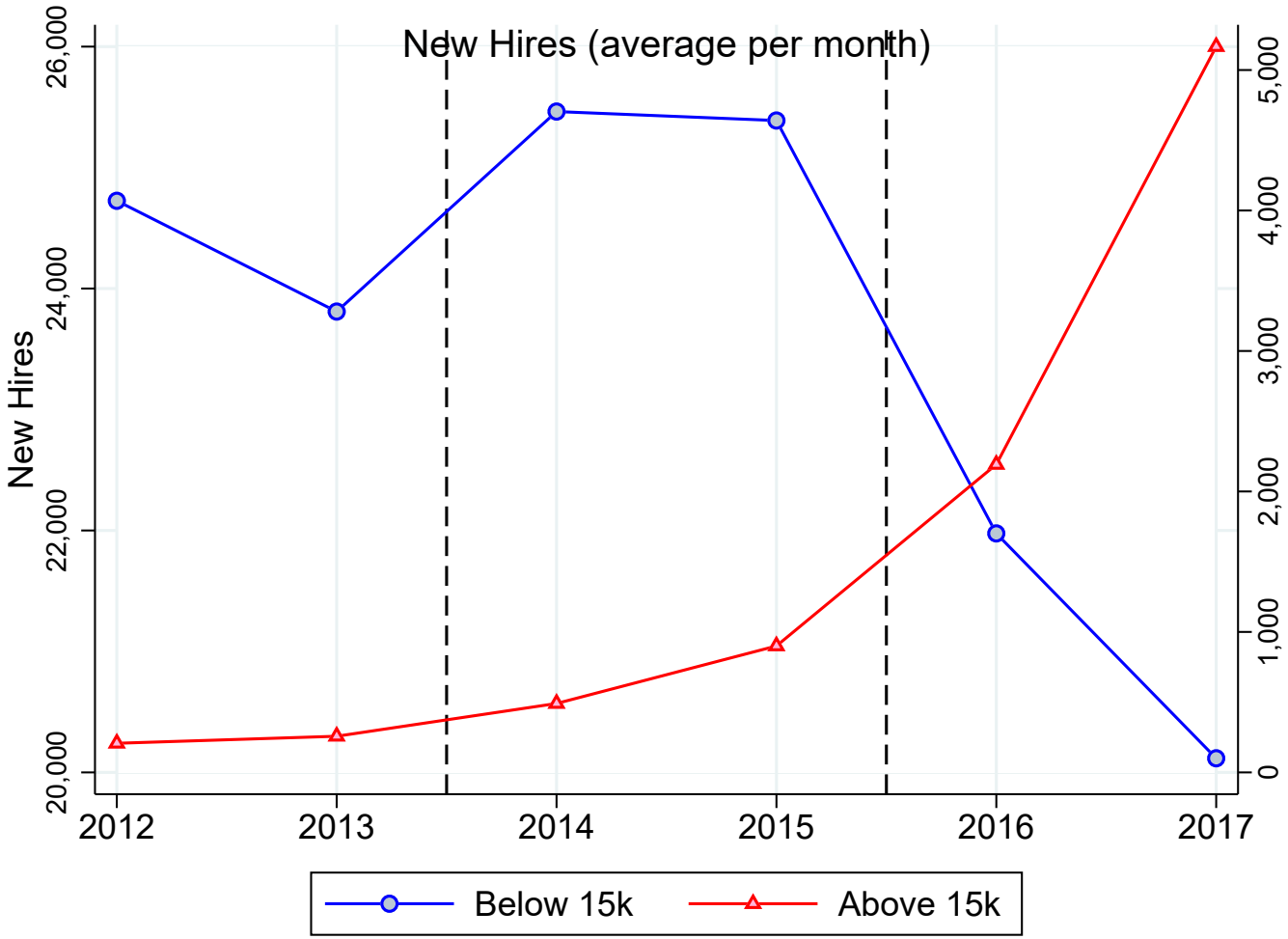
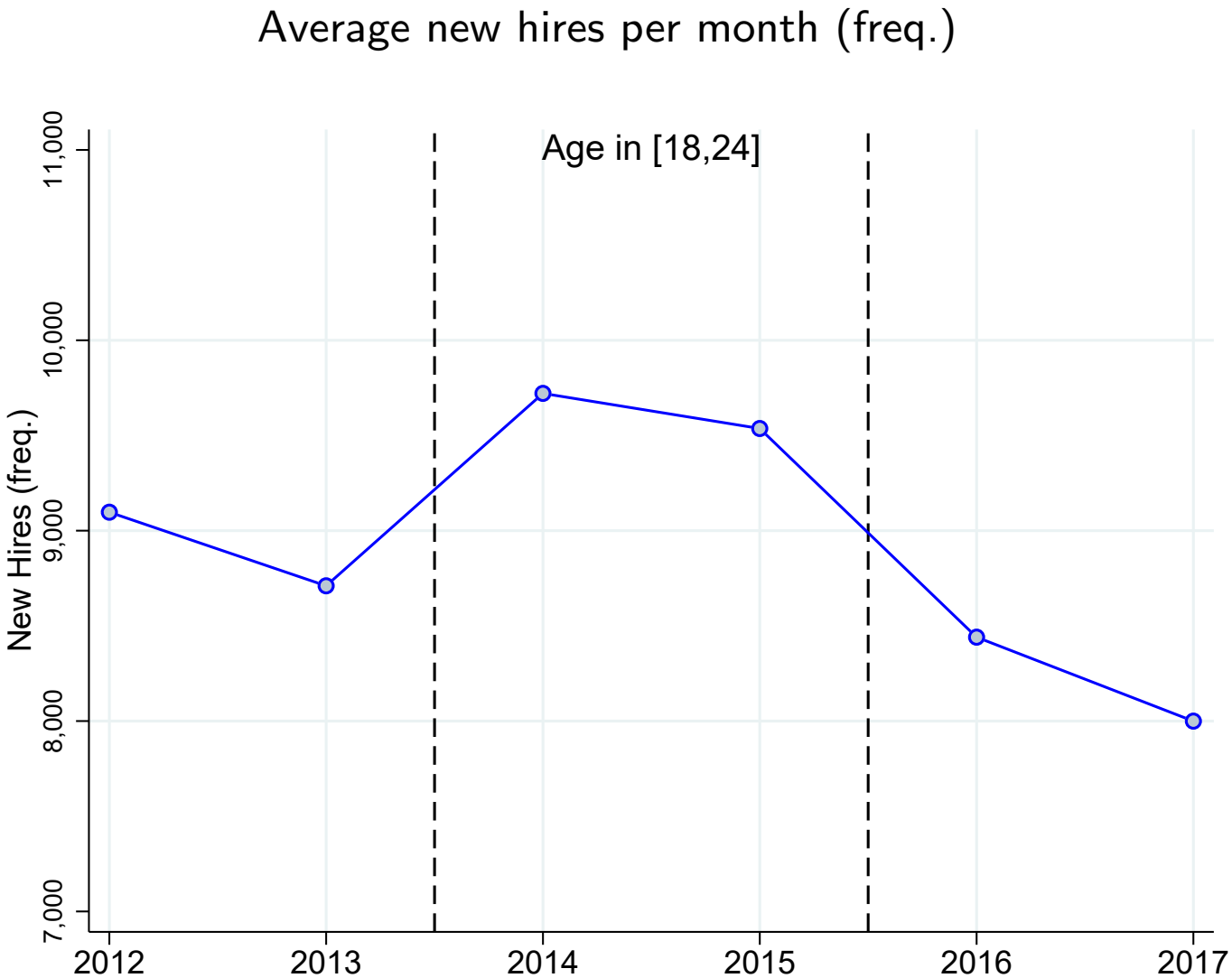
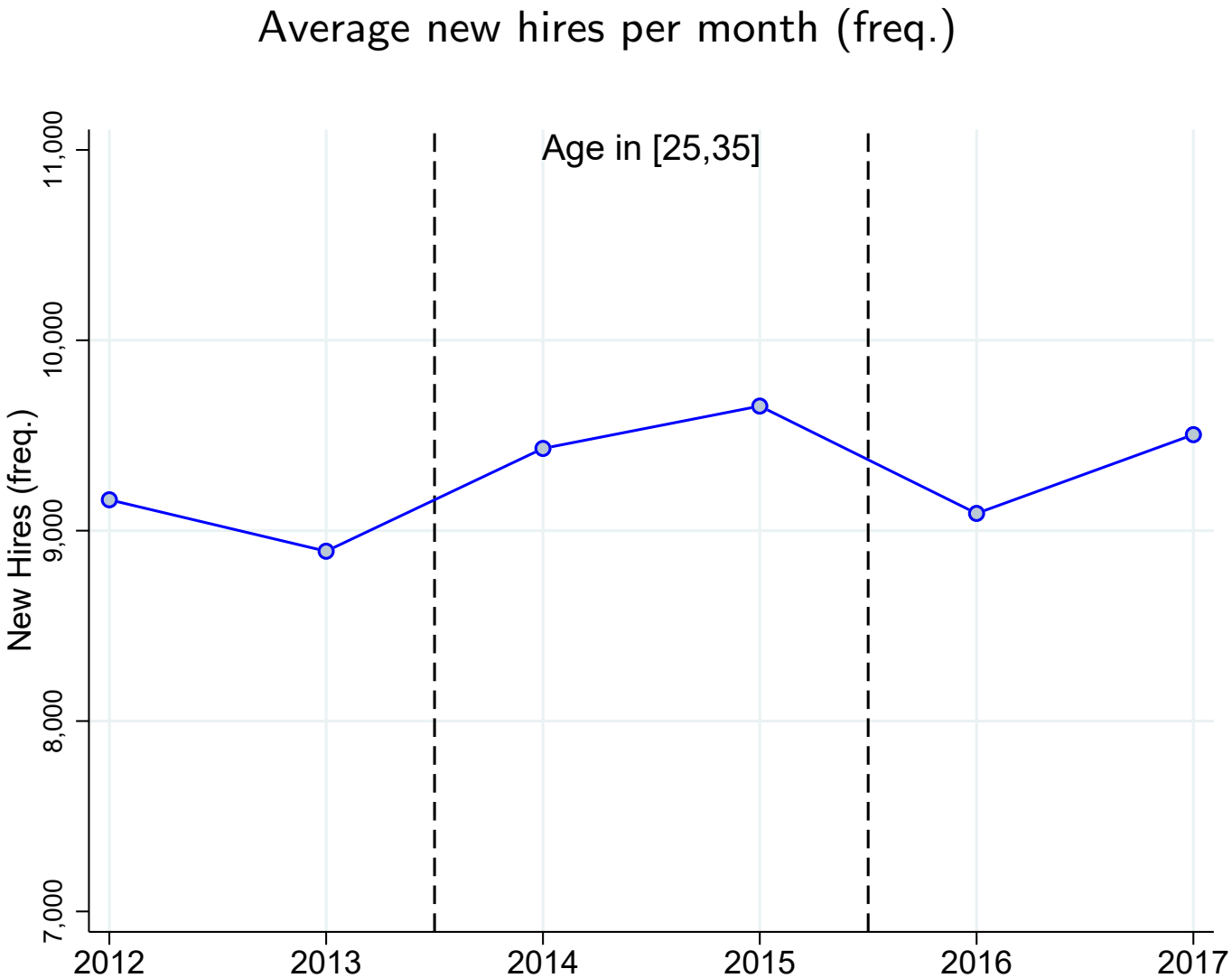


Employment effects



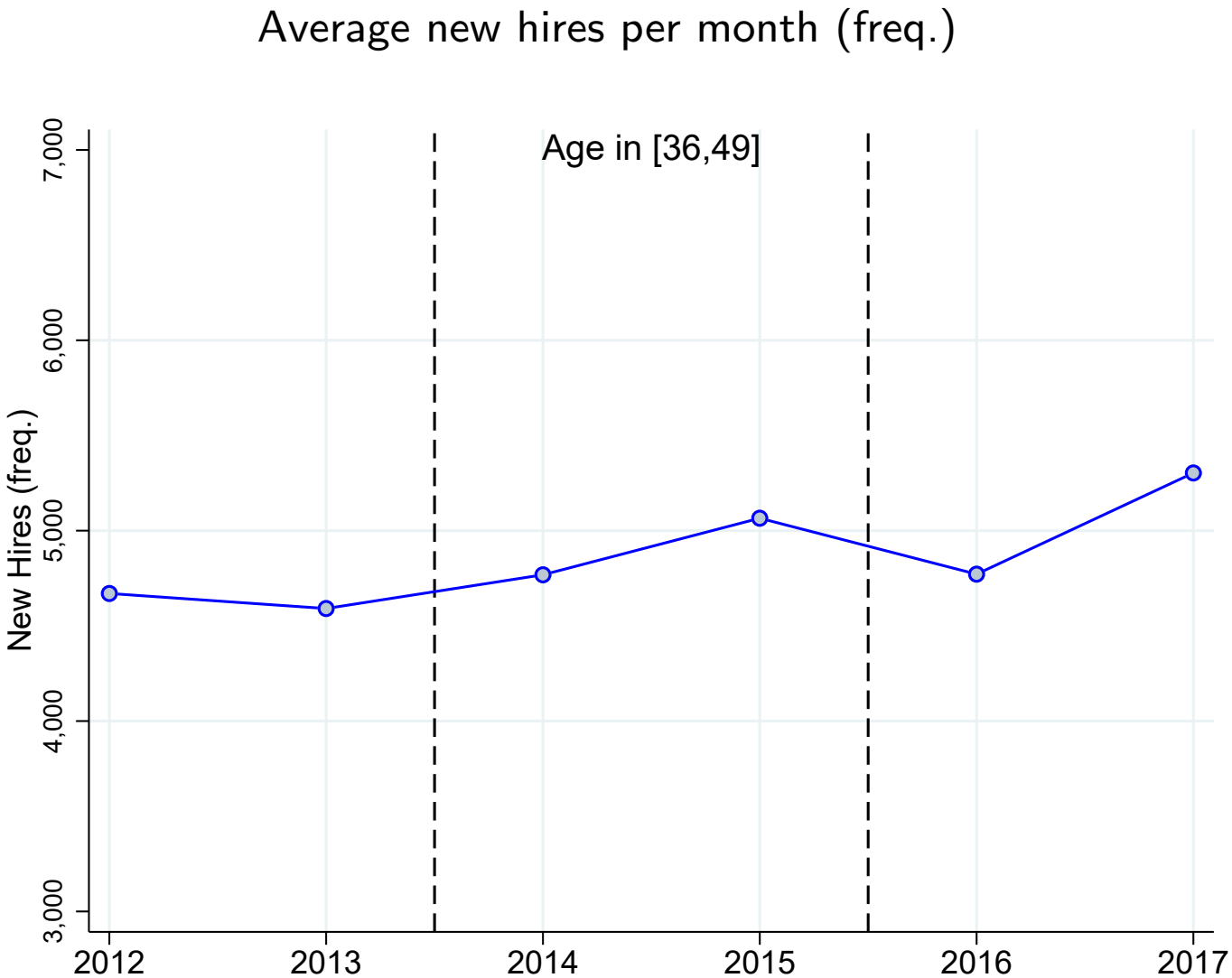
Entry driven by young workers Back

Employment effects



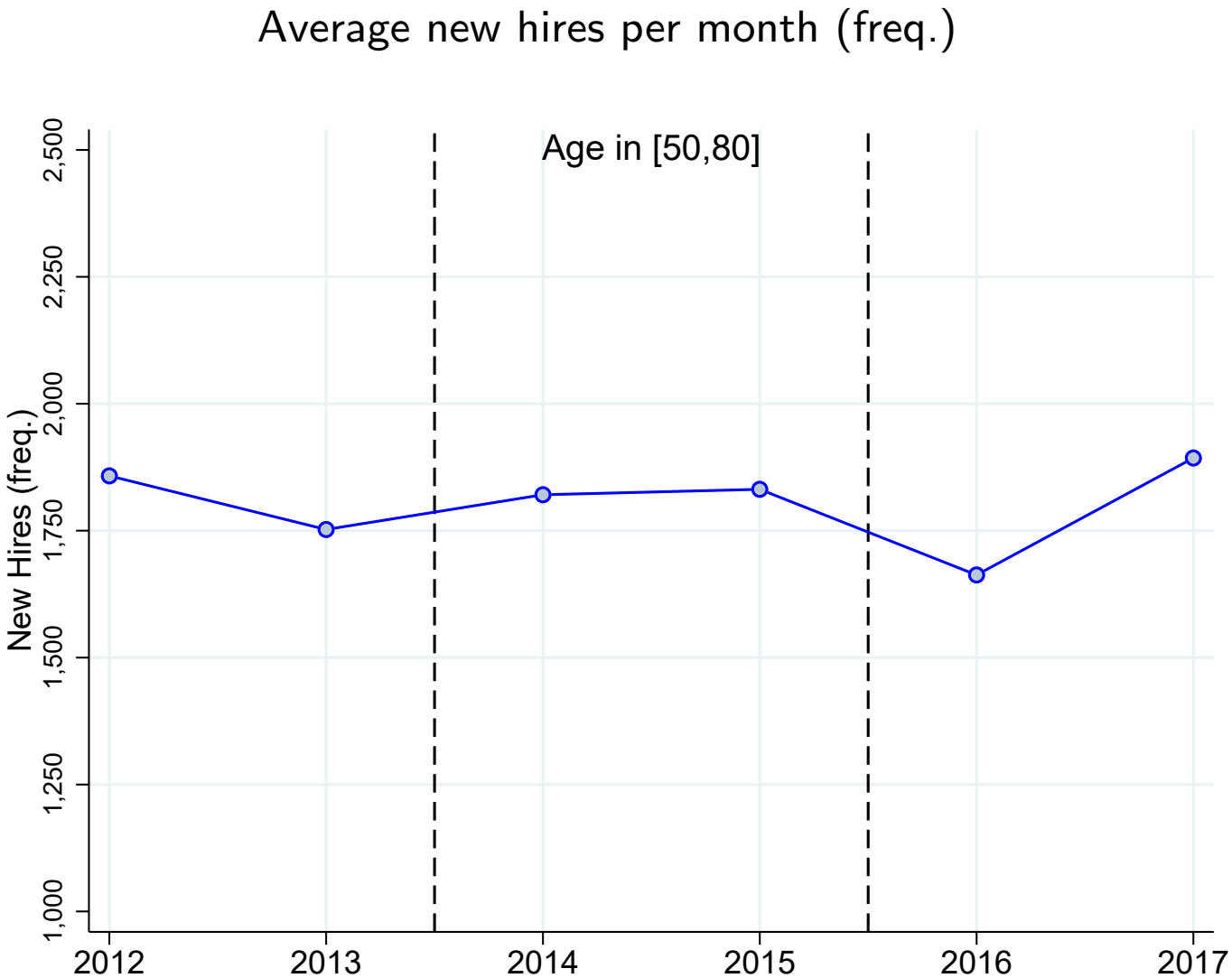
Entry driven by young workers Back

Employment effects



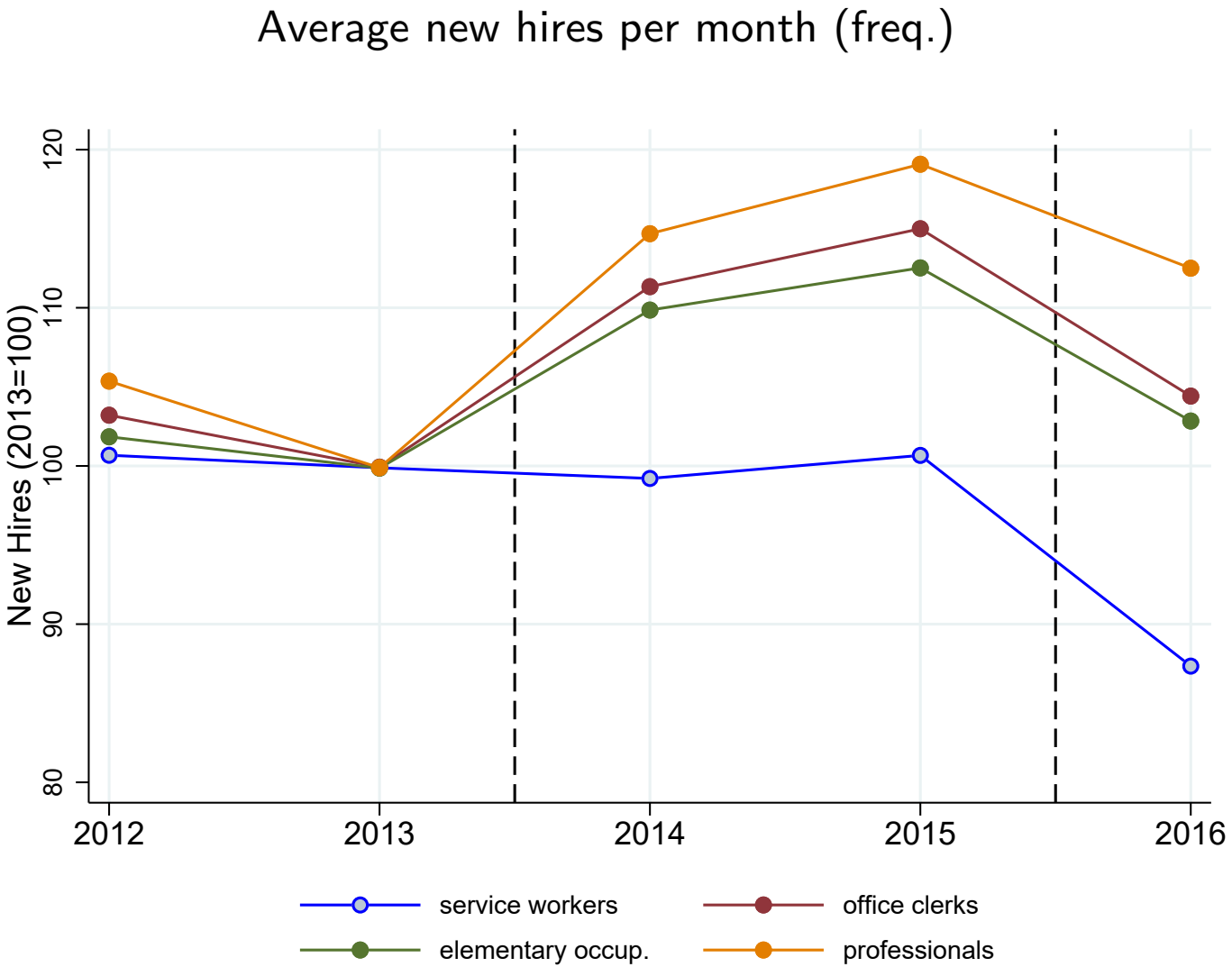
Entry driven by young workers Back

Employment effects



Entry driven by young workers Back

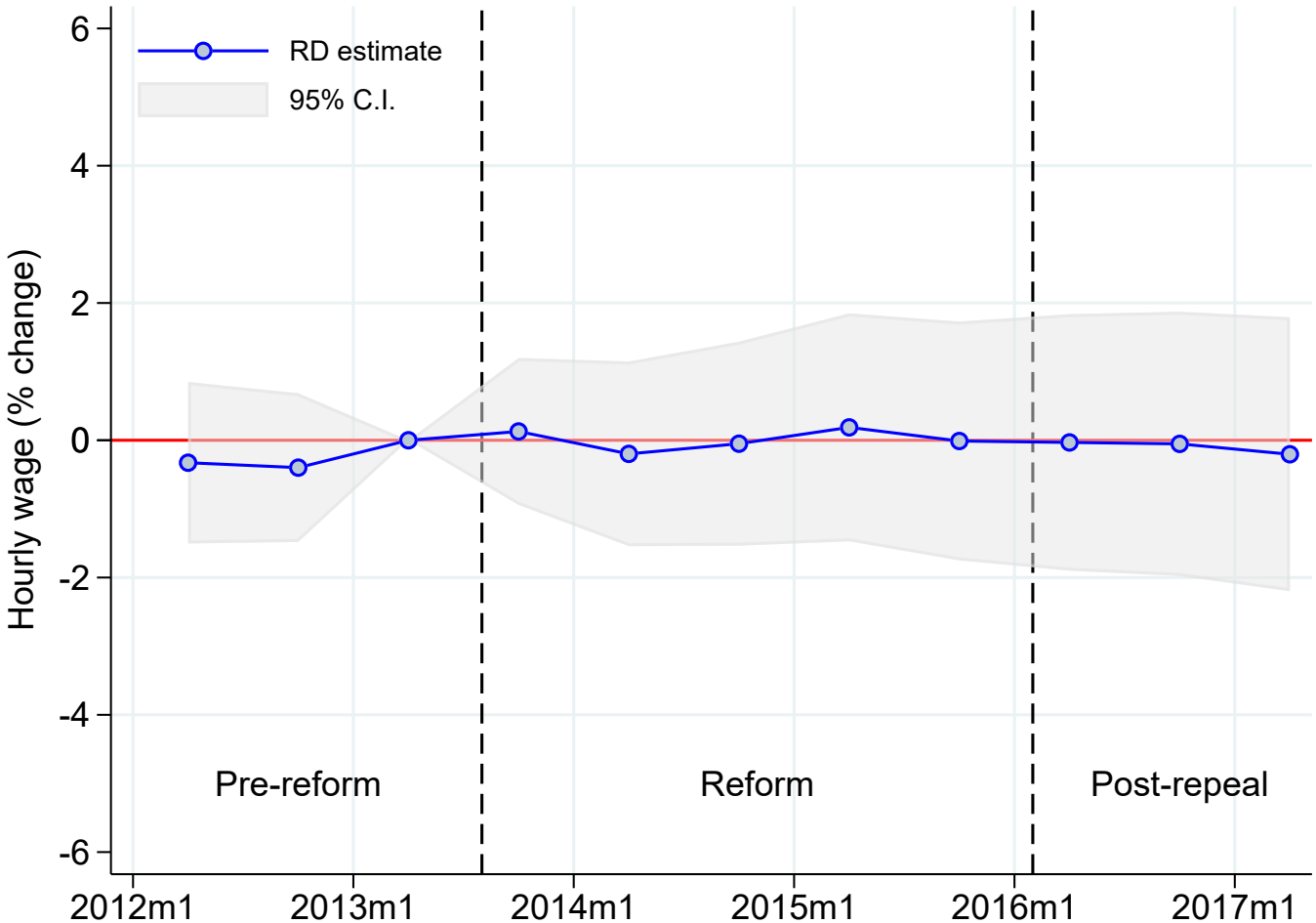
Employment effects



Back

Labor demand channel? Back

Precise zero on hourly wages

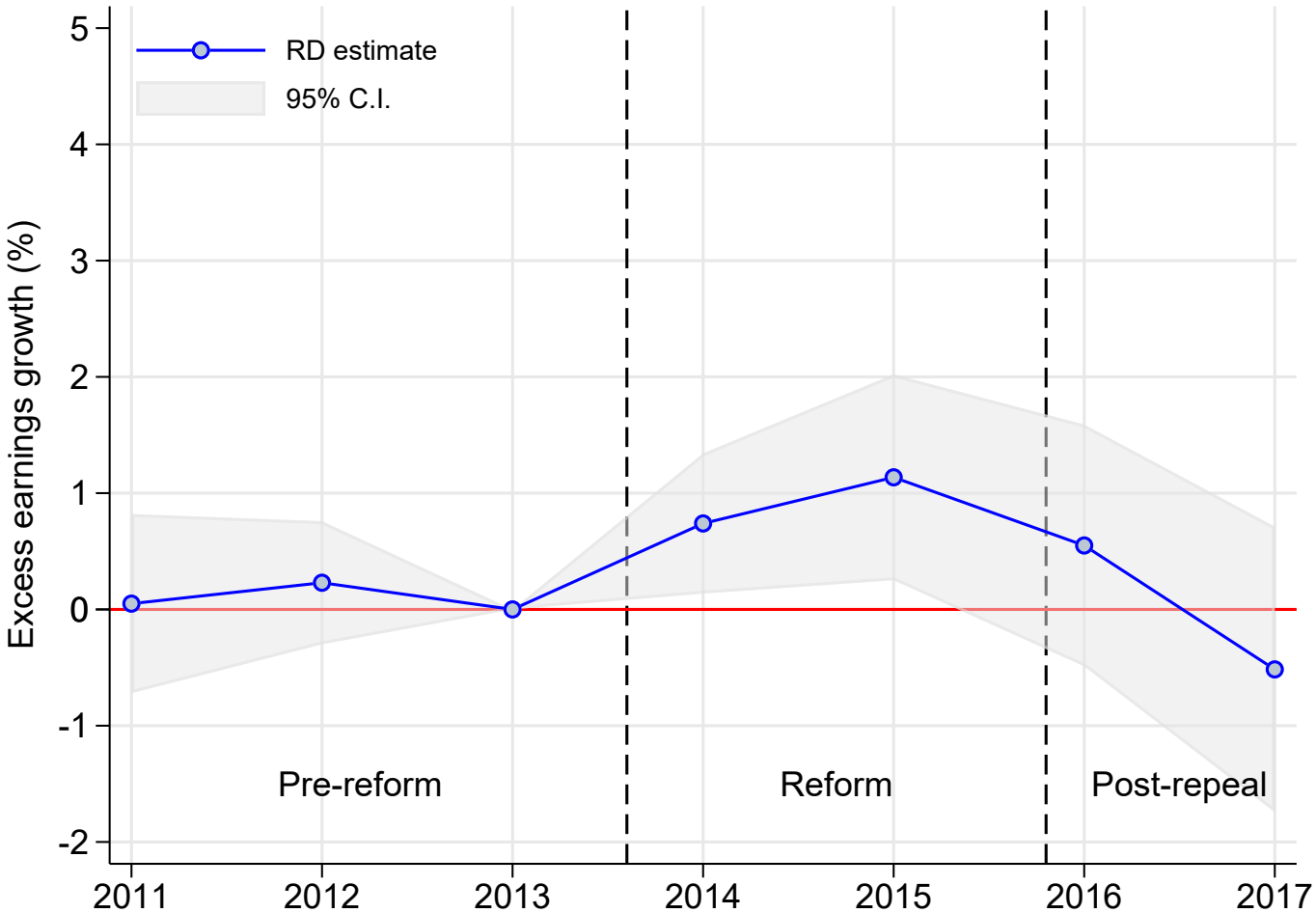


Note: RD estimates where the dependent variable is the log(hourly wage relative to Apr'13).

Income Eff. offsets Substitution Eff.?

Back

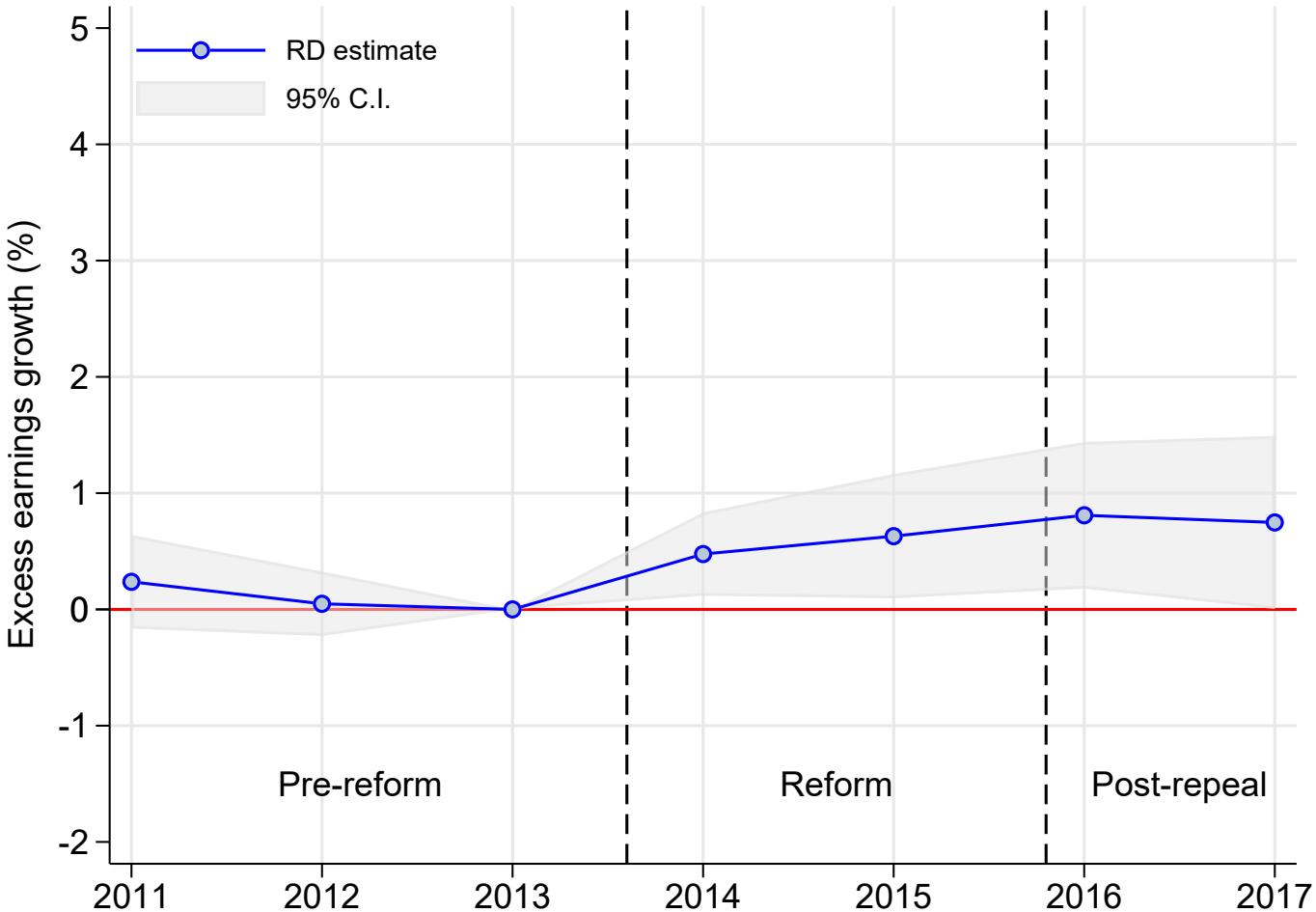
RD Age: 18-30



Note: RD estimates computed by comparing annual earnings growth w.r.t. 2013 around 15k.

Income Eff. offsets Substitution Eff.?

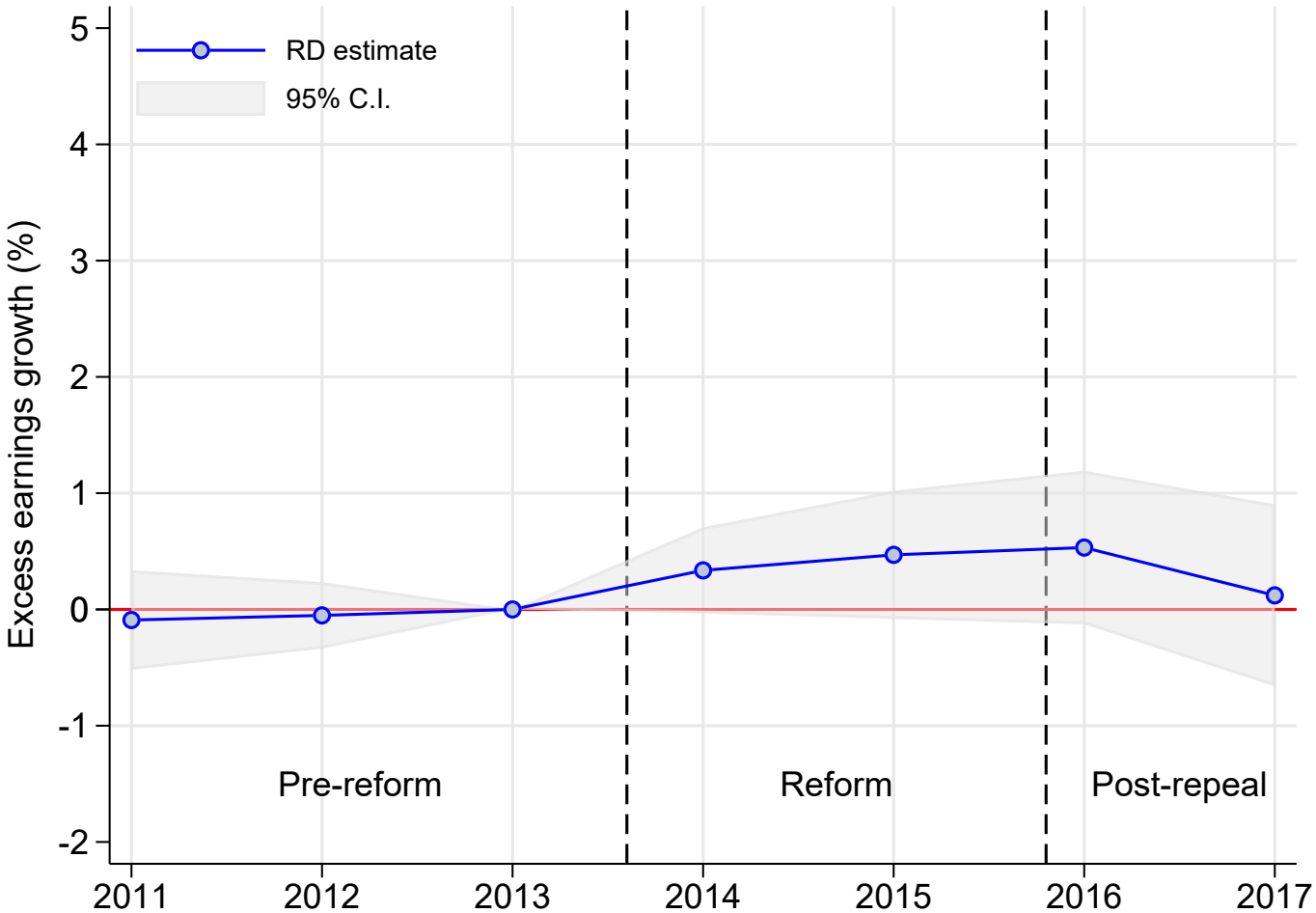
RD Age: 31-40



Note: RD estimates computed by comparing annual earnings growth w.r.t. 2013 around 15k.

Income Eff. offsets Substitution Eff.?

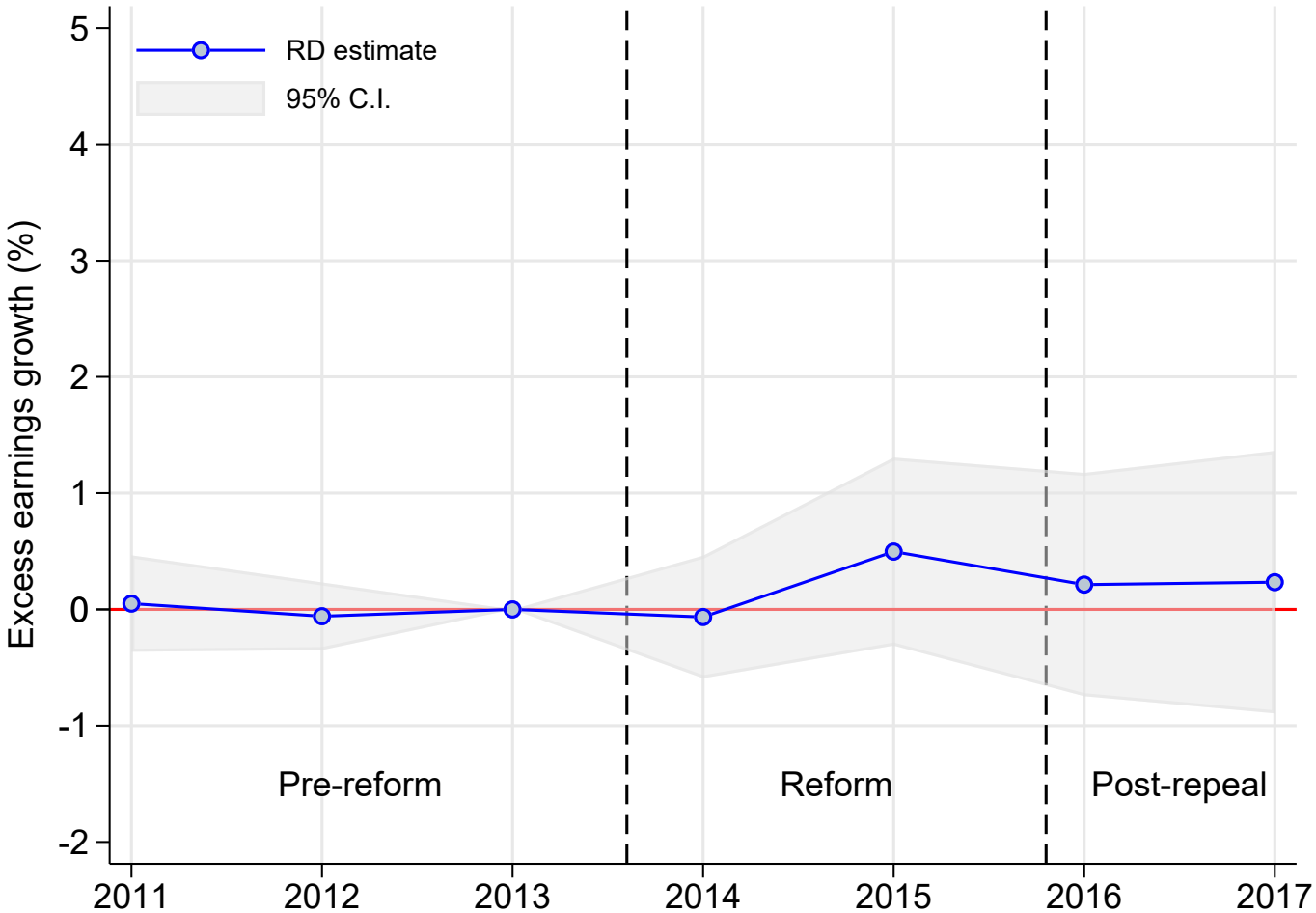
RD Age: 41-50



Note: RD estimates computed by comparing annual earnings growth w.r.t. 2013 around 15k.

Income Eff. offsets Substitution Eff.?

RD Age: 51+



Note: RD estimates computed by comparing annual earnings growth w.r.t. 2013 around 15k.

Rigidities: wage setting

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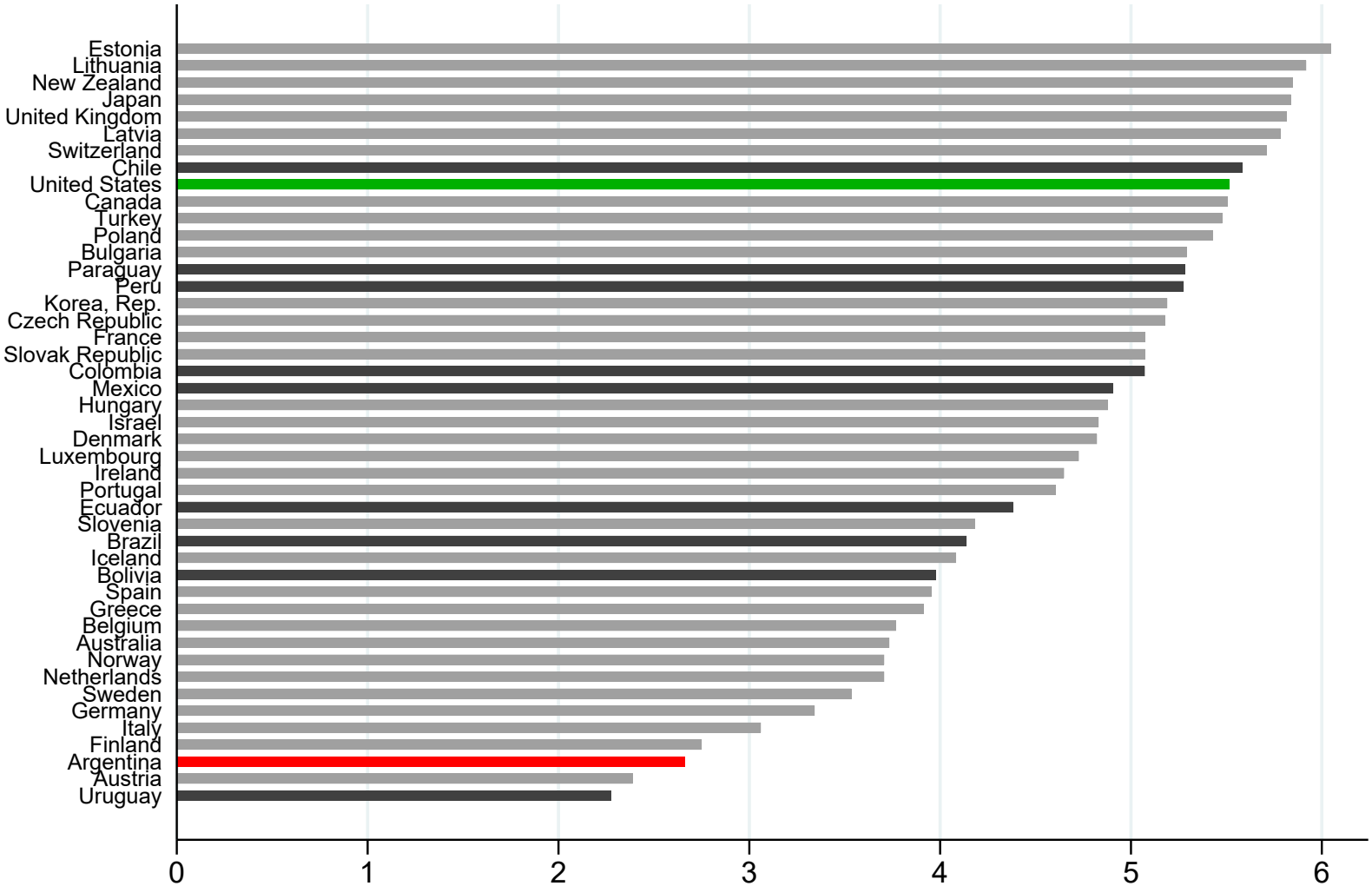
Source: World Economic Forum, the GCI Dataset, 2013.



Q: In your country, how are wages generally set?
[1 = by a centralized bargaining process; 7 = by each individual company]

Rigidities: cooperation employer-employees

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Source: World Economic Forum, the GCI Dataset, 2013.