

CAN FIXED-TERM CONTRACTS PUT LOW SKILLED YOUTH ON A BETTER CAREER PATH? EVIDENCE FROM SPAIN

J. IGNACIO GARCIA PEREZ

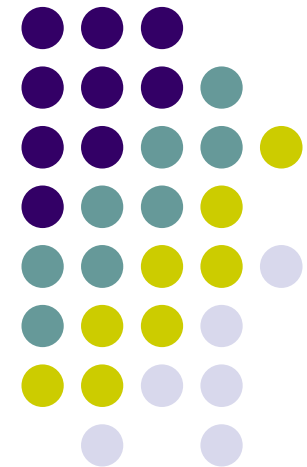
UNIVERSIDAD PABLO DE OLAVIDE & FEDEA

IOANA MARINESCU

HARRIS SCHOOL OF PUBLIC POLICY – UNIVERSITY OF CHICAGO

JUDIT VALL CASTELLO

UNIVERSITAT DE GIRONA & CENTRE FOR RESEARCH IN
ECONOMICS AND HEALTH, UNIVERSITAT POMPEU FABRA



INTRODUCTION



European countries
suffer high level of
youth unemployment

On average, 18% in
the last 20 years

Spain, the country
with the largest rate
(53% nowadays)



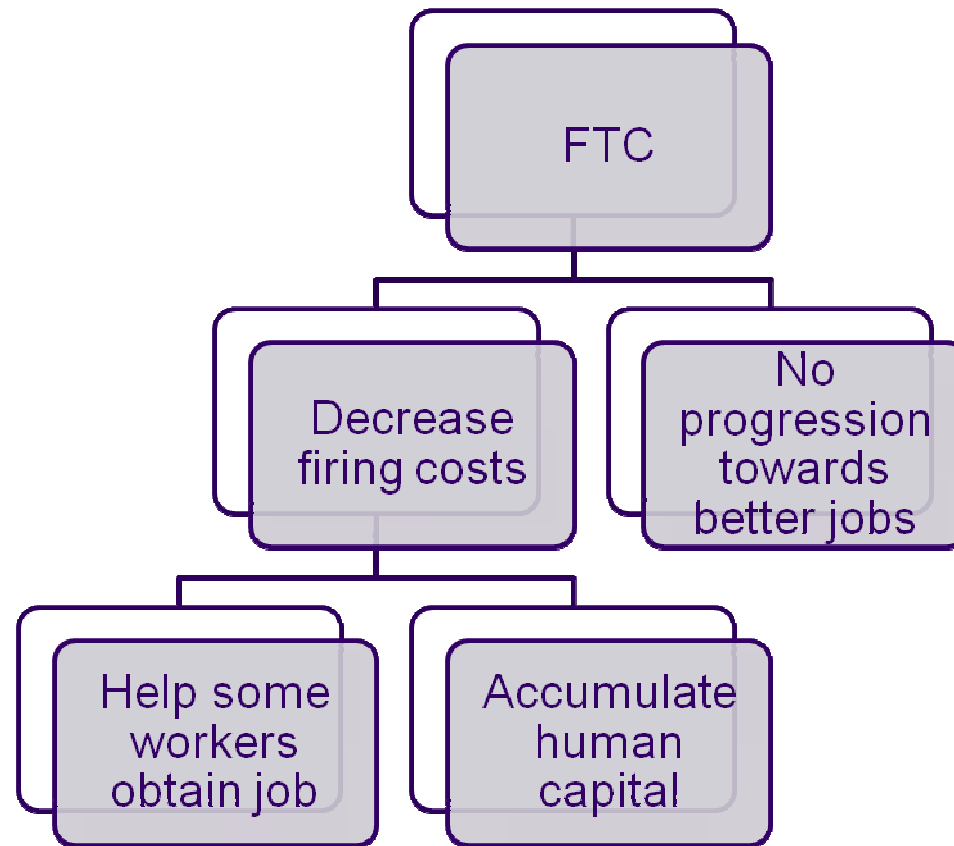
FIXED-TERM CONTRACTS (lower firing costs)

one of the most popular measures to fight against
youth unemployment in Europe

Do fixed-term contracts really help?



The theory:

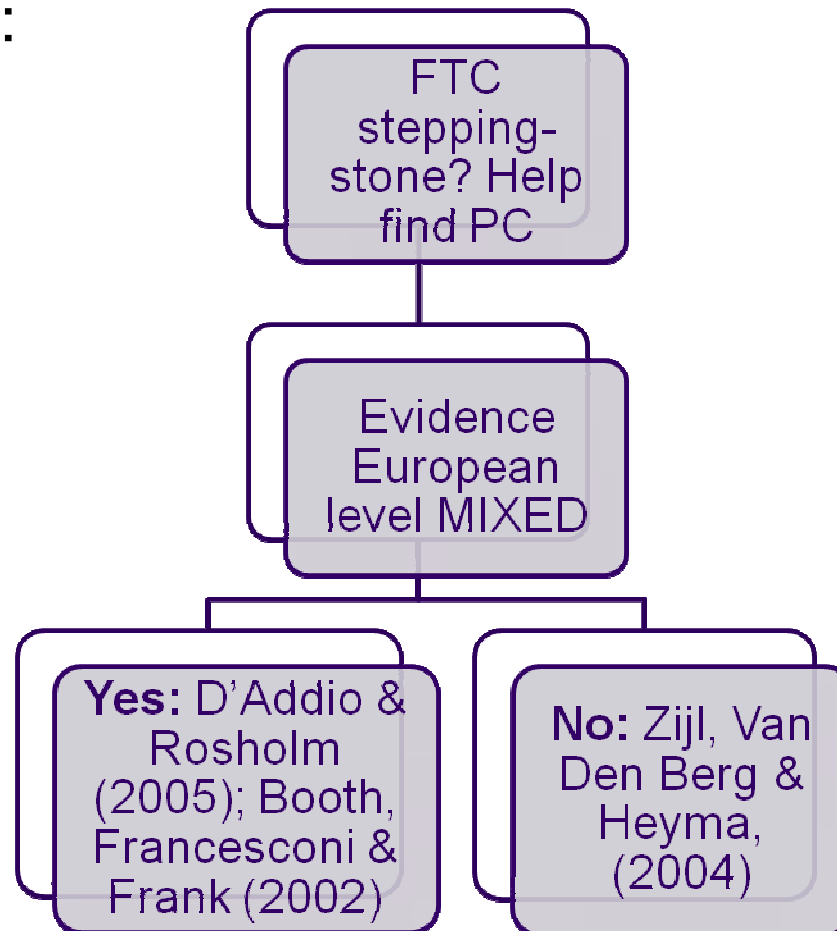


Impact FTC on labor market outcomes of affected workers **Ambiguous!!**

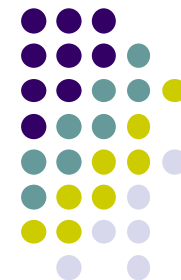
Do fixed-term contracts really help?



Empirical Evidence:



Emp. Evidence: Impact FTC on labor market outcomes **ALSO ambiguous!!**



But! All papers show short/medium term effects of FTC

Even if stepping-stone, negative long-term effects

More likely to go back to unemployment
(and again to another FTC)

Long-term impact of FTC on affected workers' careers is an open question!!

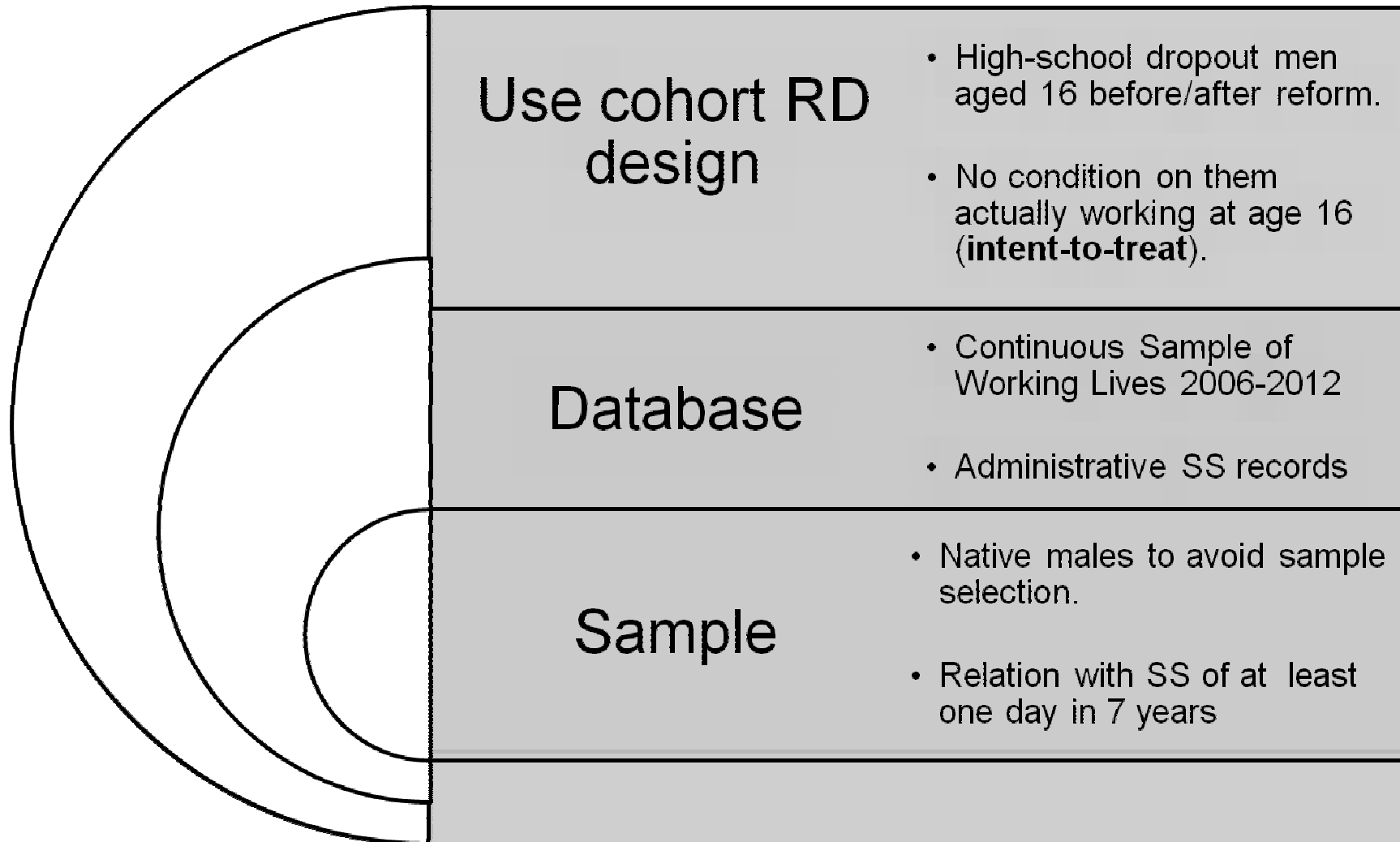
What do we do?



- **Spain is an ideal ground** for our research because fixed-term contract use was liberalized in 1984.

- **We make two contributions to the literature:**
 1. While previous literature has relied on regression adjustments and non-experimental techniques, we use a **regression discontinuity design that exploits a large change in Spanish regulation.**
 2. We innovate by examining the **long-term impact of fixed-term contracts** on young worker's career by using Social Security data (more than 20 years of follow up).

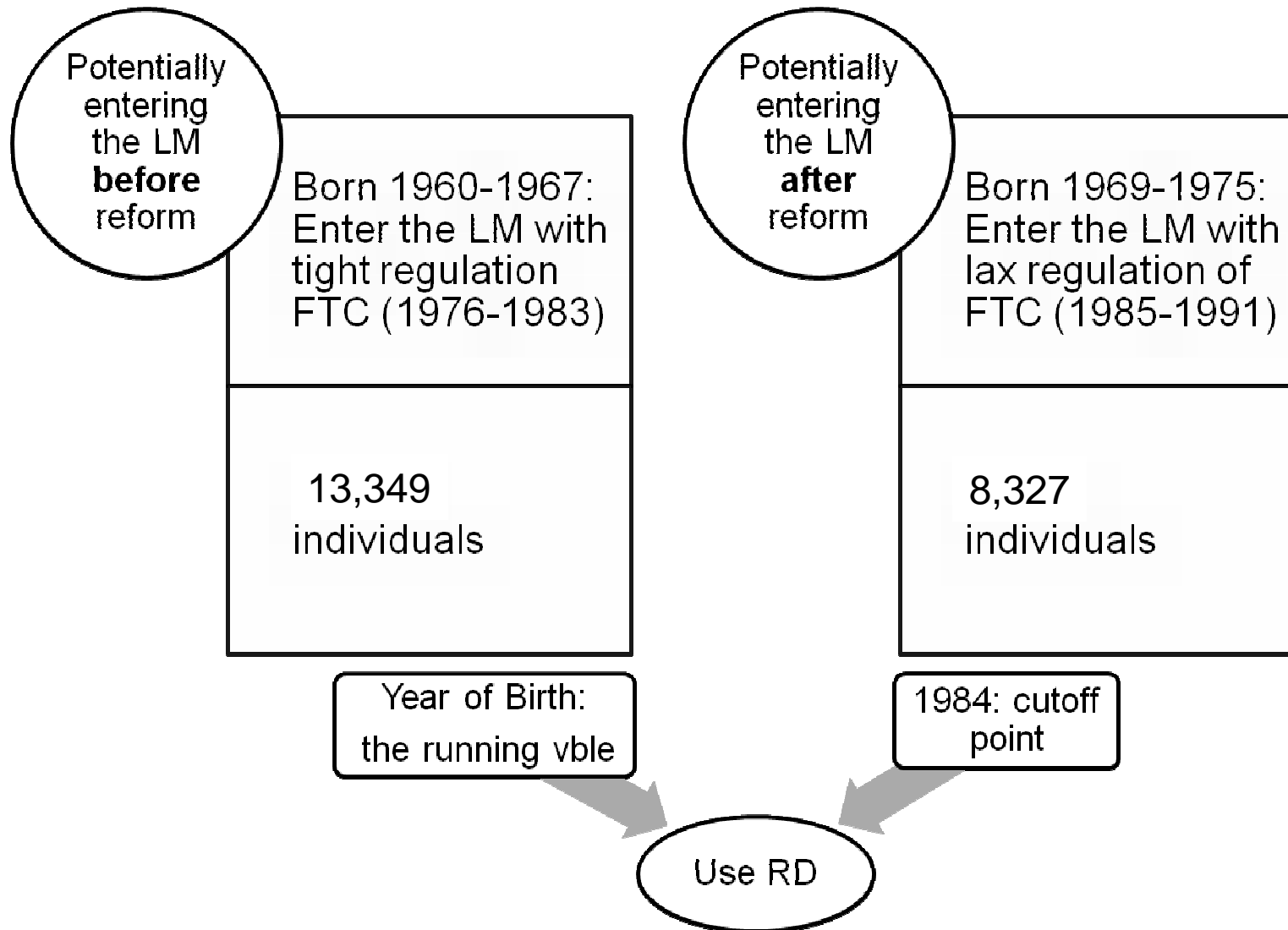
Empirical Approach



Empirical Approach



Reform in 1984:





Empirical Approach

- We will use two complementary methodologies:
 1. **Moulton (2011)**: cohort regression discontinuity design applied to long-term outcomes for workers career.
 - **Accumulated impact of the reform** (since LM entry up until 2006).
 2. **Oreopoulos et al. (2012)**: collapse the individual-level data by birth cohort, calendar year and years of potential experience
 - **Yearly effect of the reform** measured for an average year in a worker 's career

Results: Number of days worked until 2006



	ALL COHORTS		EXCLUDING 68&69 COHORTS		EXCLUDING 1968 COHORT	
effect	-205.21*** (69.23)	-201.30*** (59.67)	-348.08*** (65.63)	-306.54*** (56.37)	-339.34*** (57.55)	-315.26*** (54.37)
trend	-173.37*** (29.89)	-165.72*** (27.12)	-125.01*** (26.91)	-124.58*** (25.99)	-124.99*** (26.90)	-124.60*** (25.99)
posttrend	-179.35*** (44.08)	-183.50*** (37.83)	-222.68*** (54.23)	-230.49*** (44.36)	-228.17*** (42.45)	-225.02*** (37.76)
trend2	6.72*** (2.05)	7.43*** (1.87)	10.54*** (1.70)	10.68*** (1.66)	10.54*** (1.70)	10.68*** (1.66)
posttrend2	10.10** (4.55)	9.33** (3.47)	5.63 (6.25)	6.84 (4.24)	6.34 (4.43)	6.13* (3.33)
ur	-42.12*** (7.46)	-43.13*** (6.97)	-42.40*** (7.53)	-43.39*** (7.04)	-42.40*** (7.53)	-43.38*** (7.03)
Sector		X		X		X
Constant	6,040.96*** (204.25)	4,617.74*** (188.00)	6,181.09*** (209.45)	4,735.86*** (180.52)	6,181.27*** (209.32)	4,735.73*** (180.43)
Observations	21,676	21,676	21,676	21,676	21,676	21,676
R-squared	0.38	0.43	0.38	0.43	0.38	0.43

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Results: Log of Accumulated Wages until 2006



	ALL COHORTS		EXCLUDING 68&69 COHORTS		EXCLUDING 1968 COHORT	
effect	-0.20*** (0.07)	-0.18** (0.07)	-0.35*** (0.08)	-0.34*** (0.06)	-0.37*** (0.07)	-0.36*** (0.06)
trend	0.05 (0.03)	0.04 (0.03)	0.11*** (0.03)	0.10*** (0.02)	0.11*** (0.03)	0.10*** (0.02)
posttrend	-0.16*** (0.03)	-0.15*** (0.03)	-0.24*** (0.03)	-0.23*** (0.03)	-0.23*** (0.03)	-0.22*** (0.03)
trend2	0.00* (0.00)	0.00* (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
posttrend2	0.01** (0.00)	0.01** (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
ur	-0.02*** (0.00)	-0.02*** (0.00)	-0.02*** (0.00)	-0.02*** (0.00)	-0.02*** (0.00)	-0.02*** (0.00)
Sector		X		X		X
Constant	12.32*** (0.08)	12.16*** (0.11)	12.51*** (0.09)	12.34*** (0.12)	12.50*** (0.09)	12.34*** (0.12)
Observations	14,793	14,747	14,793	14,747	14,793	14,747
R-squared	0.04	0.08	0.05	0.08	0.05	0.08

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Second Empirical Approach (Oreopoulos et al. 2012)



- The previous approach does not properly take into account changes in the labour market through the analyzed period.
- We now collapse the data by birth cohort (c), calendar year (t) and years of potential experience (e).
- We then run a basic specification (controlling for cell sizes):

$$\bar{y}_{ct} = \alpha + \theta_c + \phi_t + \gamma_e + u_{ct}$$

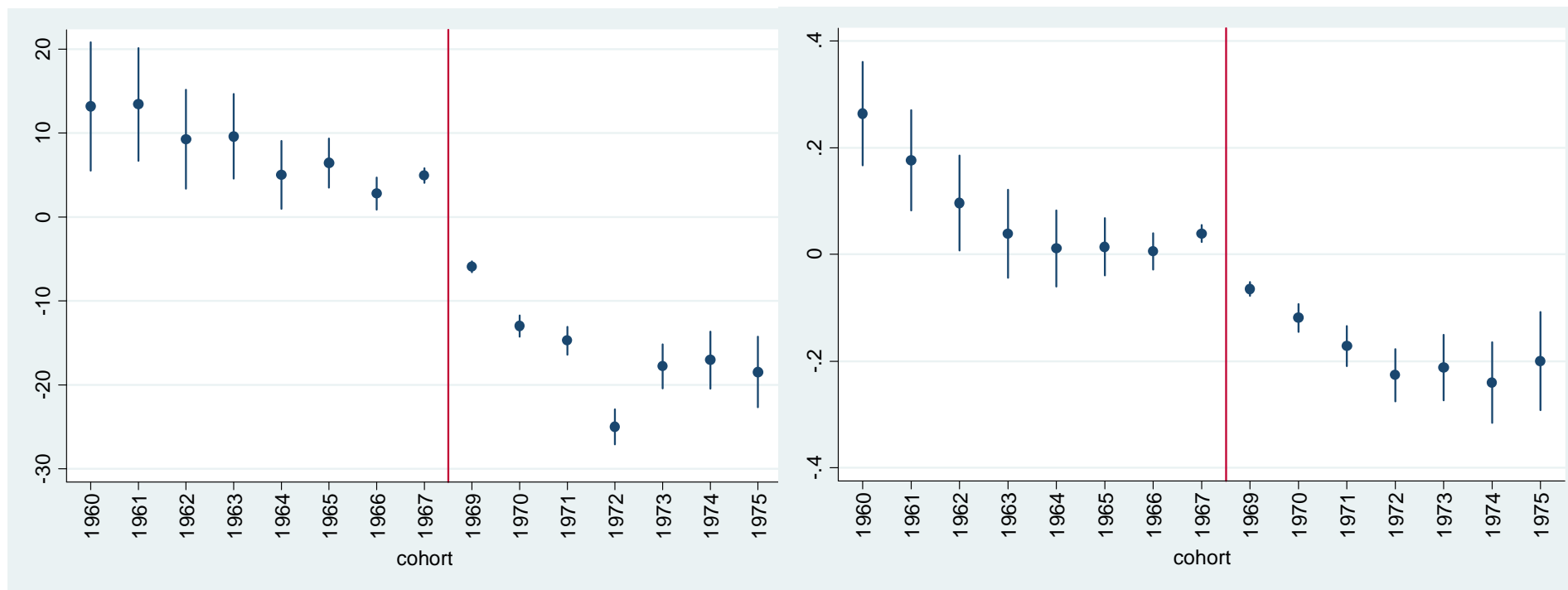
- θ_c is the cohort fixed effect;
- ϕ_t is a calendar year fixed effect.
- γ_e is a potential experience fixed effect.

The evolution of the outcomes across cohorts shows a break point in 1968 (controlling for real experience)



Number of days worked

Log (annual wages)



The effect on the number of days worked per year is negative:



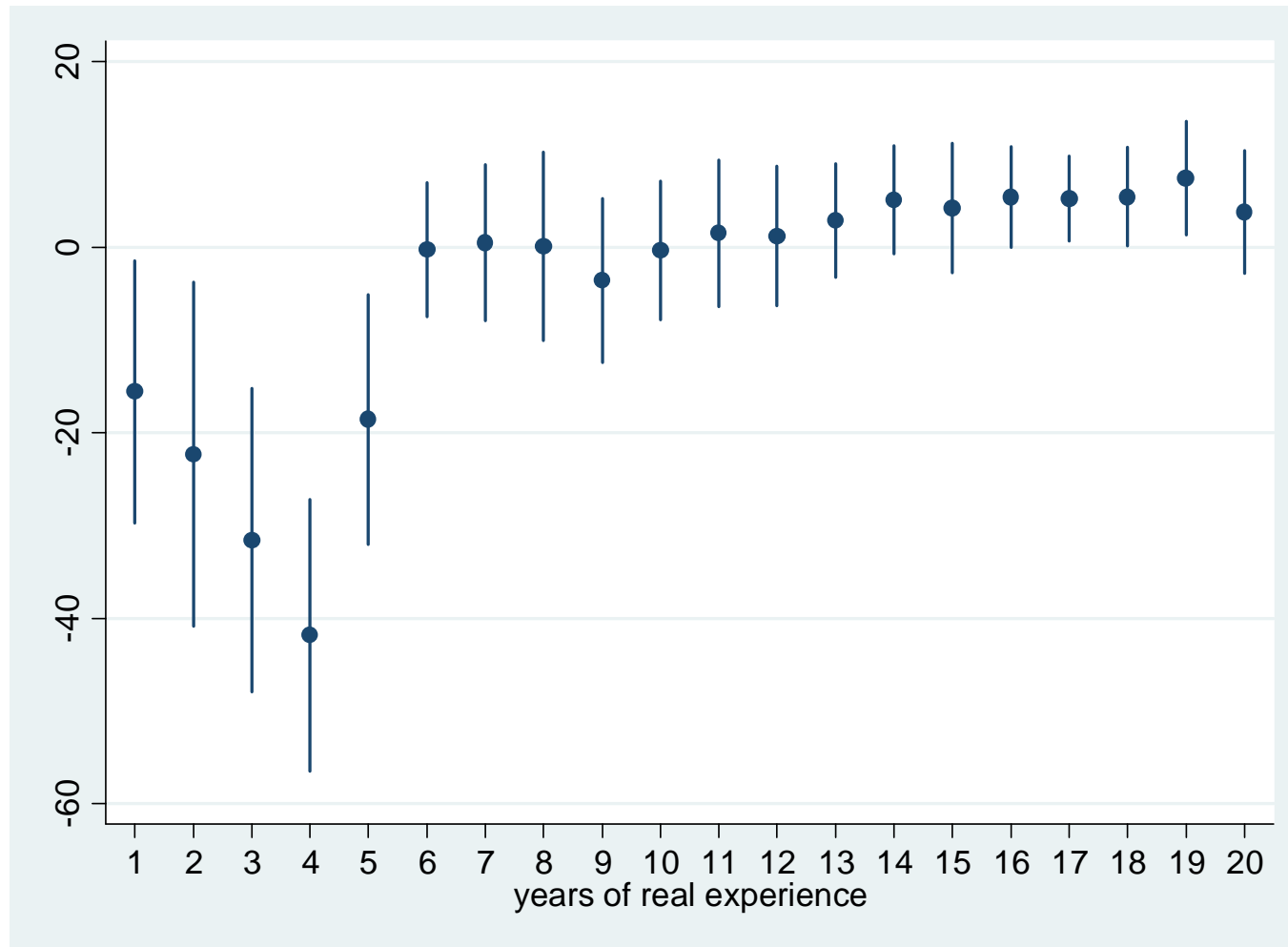
	No FE	Time FE	Experience FE	Experience & Time FE	+ Excluding 68&69 cohorts	+ Excluding 1968 cohort	interactions with Experience
effect	-8.670*** (2.590)	-5.238** (2.065)	-9.841*** (2.916)	-5.971** (2.350)	-9.443* (4.772)	-8.779** (3.722)	-3.569 (5.328)
reformrex1							-15.772** (6.730)
reformrex2							-22.489** (8.662)
reformrex3							-31.751*** (7.594)
reformrex4							-42.019*** (7.031)
reformrex5							-18.738** (6.403)
Constant	257.469*** (2.499)	65.701*** (1.827)	334.642*** (2.969)	188.594*** (12.989)	195.963*** (13.990)	196.006*** (13.948)	191.591*** (13.660)
Observations	2,080	2,080	2,080	2,080	2,080	2,080	2,080
R-squared	0.033	0.686	0.712	0.822	0.822	0.822	0.831

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Results are almost the same with a linear trend and using quarter instead of year of birth)

The effect of the reform on the number of days worked is negative during the first 5 years of real experience



The effect on wages is also negative:

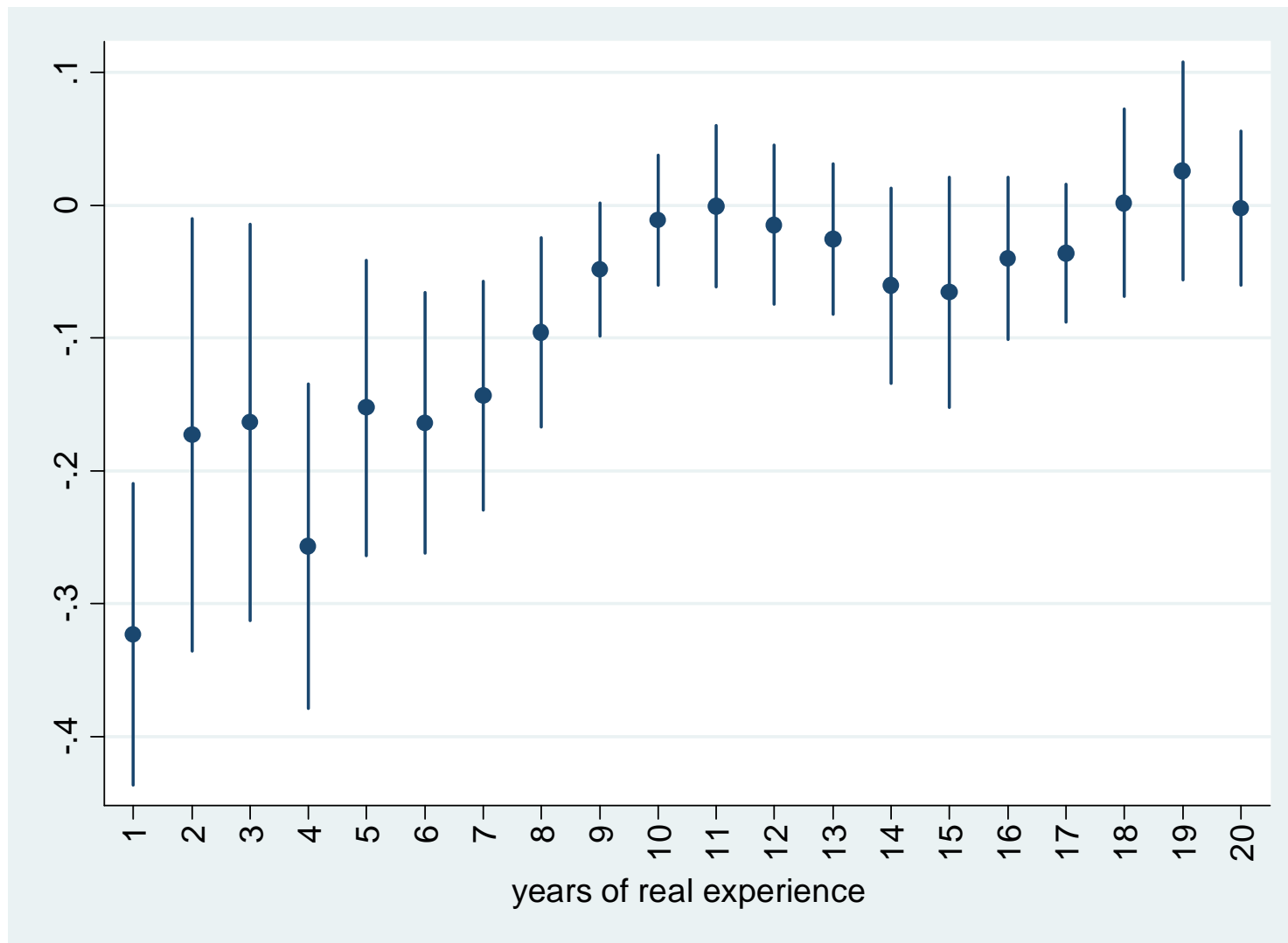


	No FE	Time FE	Experience FE	Experience & Time FE	+ Excluding 68&69 cohorts	+ Excluding 1968 cohort	interactions with Experience
effect	-0.153*** (0.041)	-0.109*** (0.031)	-0.171*** (0.047)	-0.130*** (0.040)	-0.201*** (0.021)	-0.220*** (0.018)	-0.125*** (0.030)
reformrex1							-0.318*** (0.051)
reformrex2							-0.167** (0.075)
reformrex3							-0.158** (0.068)
reformrex4							-0.251*** (0.055)
reformrex5							-0.147** (0.050)
reformrex6							-0.158*** (0.044)
reformrex7							-0.138*** (0.039)
reformrex8							-0.090** (0.032)
reformrex9							-0.043* (0.024)
Constant	9.196*** (0.040)	7.818*** (0.069)	9.980*** (0.056)	9.641*** (0.081)	9.740*** (0.075)	9.739*** (0.075)	9.711*** (0.076)
Observations	1,457	1,457	1,457	1,457	1,457	1,457	1,457
R-squared	0.027	0.831	0.860	0.906	0.907	0.907	0.911

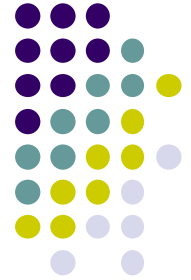
Robust standard errors in parentheses

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The effect of the reform on yearly wages is still negative after 9 years of real experience

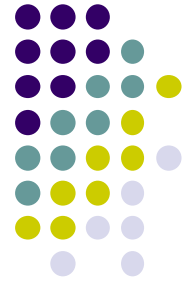


Concluding remarks: FINDINGS



- Widely available fixed-term contracts at labor market entry means:
 - More likely to be on a fixed-term contract in the long run
 - Higher use of fixed-term contracts during the LM career
 - Fewer days worked (-315)
 - Lower wages (-36%)
 - We also find an increase in the probability of finding a job before age 19

Concluding remarks: FINDINGS



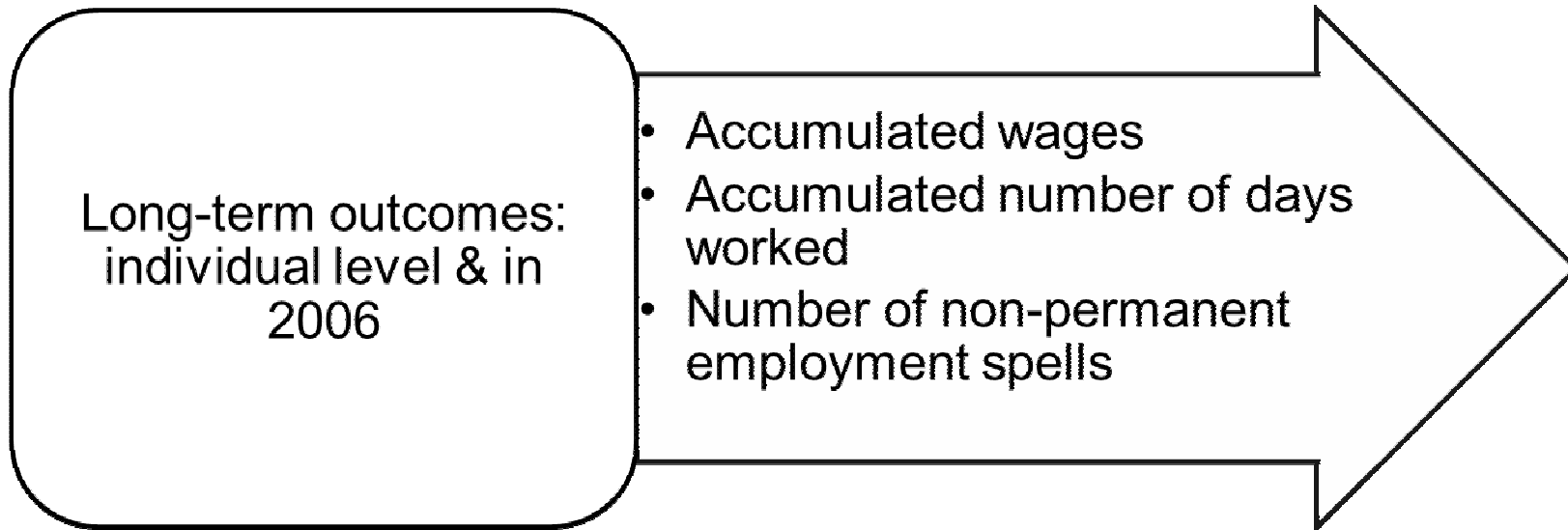
- When controlling for what happens in the labor market during the 20-year span we analyze
- We get similar results:
 - (-8.78) days of work per year (193 less accum. days)
 - (-22%) less yearly wages
- We prefer these set of results because they are more carefully taking into account age of LM entry and business cycle effects.

Concluding remarks: POLICY



- Making FTC more readily available reduced the welfare of low skilled workers.
- FTC allow low skilled workers to get a quicker entry into the LM but **the long-run consequences are negative.**
- We conclude that, far from being a stepping stone, **fixed-term contracts are a stumbling block for the career of low skilled workers** (vicious circle of instability).

First Empirical Approach (Moulton, 2011)



$$Outcome_i = \alpha + \beta_1 reform_c + \beta_2 (BirthYear_i - C) + \beta_3 (BirthYear_i - C) reform_c + \beta_4 (BirthYear_i - C)^2 + \beta_5 (BirthYear_i - C)^2 reform_c + SectorFE_i + \beta_6 UnemRateEntry_j + \varepsilon_i$$

$$\text{With } reform_c = I(BirthYear_i \geq C)$$

Second Empirical Approach (Oreopoulos et al. 2012)



- We can adapt our RD approach to this specification by estimating:

$$\bar{y}_{ct} = \alpha + \beta_1 reform_c + \beta_2 (BirthYear_c - C) + \beta_3 (BirthYear_c - C) reform_c + \beta_4 (BirthYear_c - C)^2 + \beta_5 (BirthYear_c - C)^2 reform_c + \phi_t + \gamma_e + u_{ct}$$

- $Reform_c$ is, again, a dummy equal to 1 for cohorts 1969 and later
- ϕ_t is a calendar year fixed effect.
- γ_e is a potential experience fixed effect.

ROBUSTNESS CHECK:

Sample restricted to include only those who began working at ages 14-17 or to include in the control group only those who begin working before the reform



Days worked

	ALL COHORTS		EXCL. 68&69 COHORTS		EXCL. 1968 COHORT	
Age First Job 14-17	-296.86*** (100.53)	-212.67** (95.21)	-384.48*** (125.87)	-257.24* (131.70)	-452.30*** (116.17)	-347.97** (129.88)
Control Group: First Year Employment Before Reform	-921.75*** (77.60)	-887.81*** (75.26)	-954.67*** (107.41)	-897.57*** (104.91)	-946.40*** (99.69)	-905.91*** (100.32)

Accumulated wages (logs)

	ALL COHORTS		EXCL. 68&69 COHORTS		EXCL. 1968 COHORT	
Age First Job 14-17	-0.22** (0.08)	-0.21** (0.08)	-0.50*** (0.06)	-0.44*** (0.05)	-0.57*** (0.03)	-0.54*** (0.04)
Control Group: First Year Employment Before Reform	-0.43*** (0.07)	-0.40*** (0.08)	-0.49*** (0.05)	-0.47*** (0.05)	-0.51*** (0.04)	-0.49*** (0.05)