Labour Court Inputs, Judicial Cases Outcomes and Labor Flows: Identifying Real EPL

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Literature

• EPL and Labor Market Outcomes and the "usual" cross-country panel analysis (Lazear, 1990)

• Change in labor laws targeting different populations (Boeri and Jimino, 2003, Bauer & alii, 2004, Behaghel &alii, 2007)

• Judicial breaks in the Employment-at-will doctrine in the 1970's and the 1980's in the US (Autor, Donohue and Schwab, 2004 / Autor, Kerr, and Kuegler, 2007)

Problems

- Caseload
  - California ~= 1 000 cases in 1986 (Dertouzos, 1986)
  - France ~= 160 000 cases every year (~=30 % of the number of workers enrolling at the National Unemployment Agency, ANPE)

- Enforcement
  - Worker's victory:
    - France : 75%
    - UK: 50%
  - Settlement rate
    - France: 20%
    - UK: 60%

EPL and Labour Market Outcomes

• EPL grants the possibility of challenging "unfair" dismissals

• Labor Court environment and inputs → Judicial outcomes when workers challenge "unfair" dismissals → Firing costs → Labor market outcomes

Firing cost and unfair dismissal : Cost-Benefit analysis

- **In France, most cases are dismissals.**
- For a dismissal for personal motive, the firm incurs a minimum cost (c_m) if the dismissal is unchallenged by the worker. This cost c_m is lower than the maximum cost c_M, which leads the worker not to sue the firm.
- Probability that the worker files a suit, p_f,
- Probability p_c that the case ends with a formal agreement (judge)
- When the conciliation fails, probability that the worker wins, p_w.
- Judge tries to reach an agreement at an "intermediary" cost c_c, given by the jurisprudence, always lower than c_M.
- Both worker and firm know p_w, specific to each case
- Appendix and text discuss when there is a disagreement on p_w (for a real eq.)

- **Firm's expected firing cost of choosing c_m**

$$E(c) = p_f \left\{ p_c (c_c + l_c) + (1 - p_c)\left[p_w (c_m + F) + (1 - p_w) c_m + l \right] \right\} + (1 - p_f) c_m$$

Where F compensatory award to the worker and l_c is firm's litigation cost at conciliation, l is the firm's litigation cost at trial

Firing cost and unfair dismissal : Cost-Benefit analysis

- The firm chooses dismissals rather than fully paying if

$$p_f\left\{p_c(c_c+l_c)+(1-p_c)\left[p_w(c_m+F)+(1-p_w)c_m+l\right]\right\}+(1-p_f)c_m<c_M$$

- The worker chooses to challenge if

$$p_w(c_m+F)+(1-p_w)c_m-k>c_m \qquad \text{or} \qquad c_c-k_c>c_m$$

k_c being the cost of litigation for the worker at the conciliation stage, k being the cost at the trial stage

Assuming that $c_c-k_c>c_m$ then,

- The worker goes to trial if $p_w>\overline{p_w}=\dfrac{c_c-c_m+k-k_c}{F}$

- and accepts the agreement if $p_w<\overline{p_w}$

- The firm prefers dismissing if $p_w<p_w^{**}=\dfrac{c_M-c_m-l}{F}$ F is assumed large enough so that if a loss at trial is sure, the firm prefers paying the maximum

- The firm accepts conciliation if $p_w>p_w^*=\dfrac{c_c-c_m-l+l_c}{F}$

Equilibrium

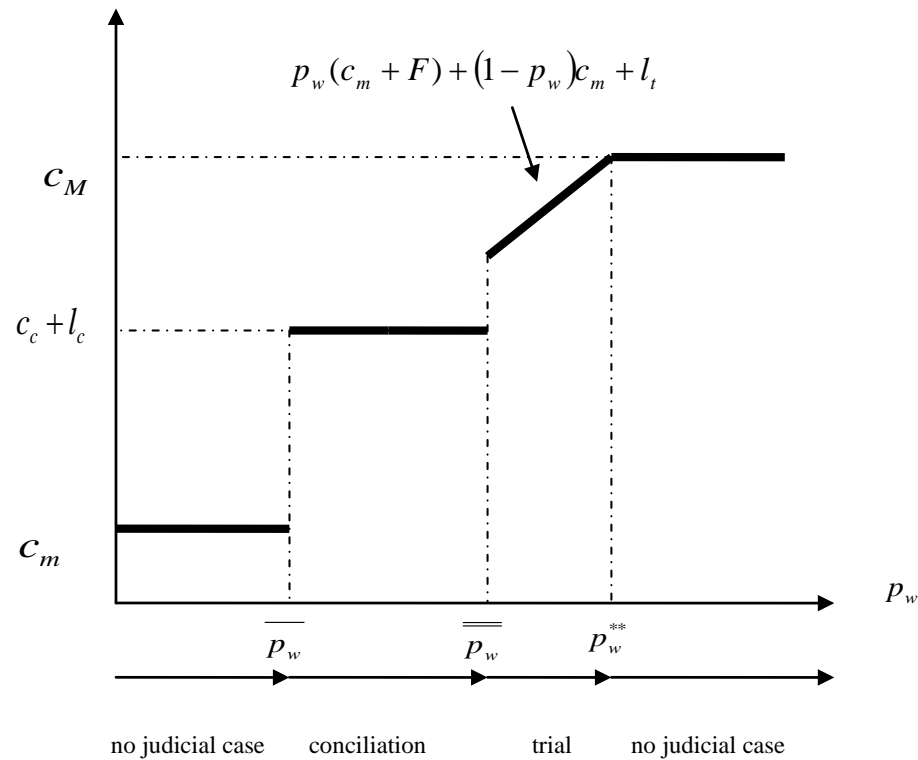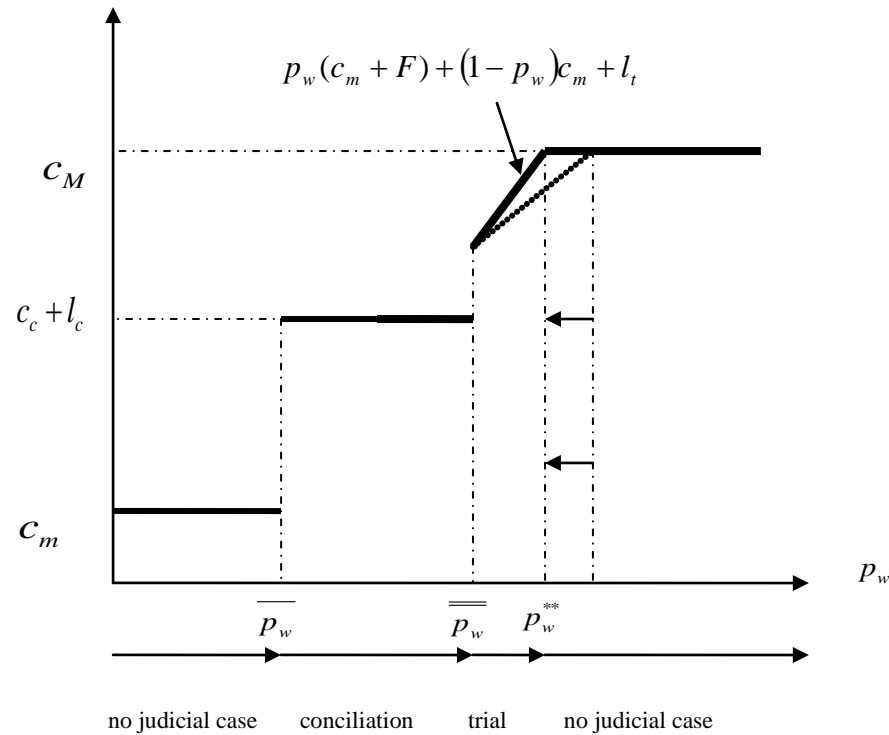**Figure 1: Firing cost**

Equilibrium

Fig. 2: Firing cost, case outcomes and an increase in the litigation costs of the firm

Equilibrium

$$p_w(c_m + F) + (1 - p_w)c_m + l_t$$

c_M

$c_c + l_c$

c_m

p_w

$\overline{p_w}$ $\overline{\overline{p_w}}$ p_w^{**}

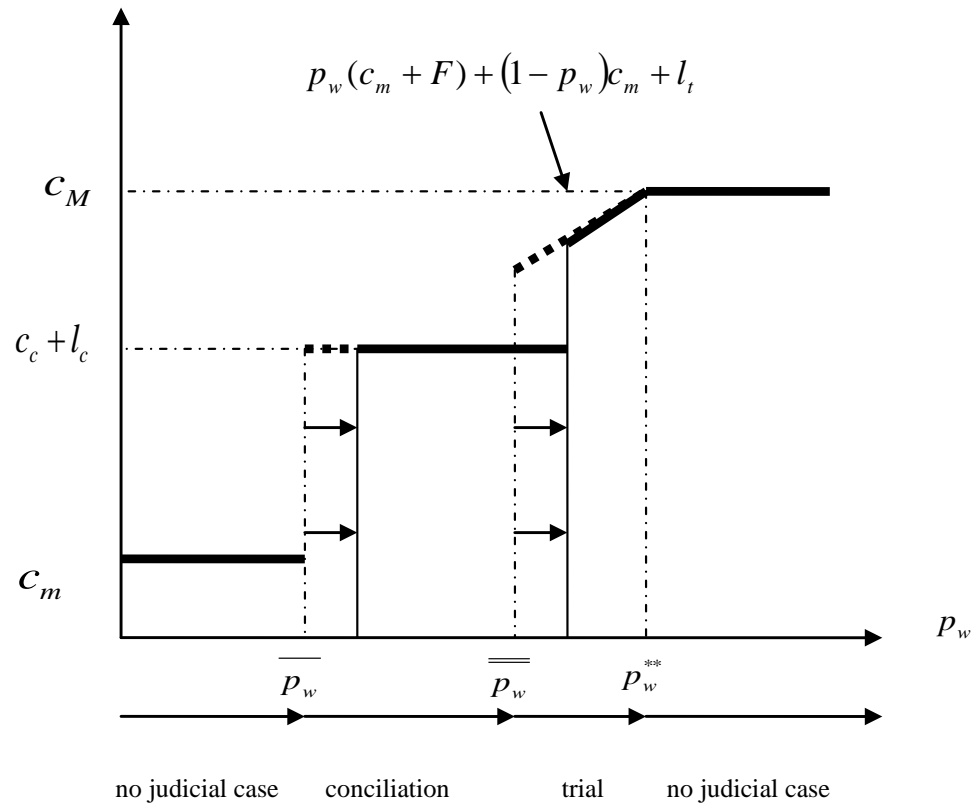no judicial case   conciliation   trial   no judicial case

Fig. 3: Firing cost, case outcomes and an increase in the litigation cost for the worker

Prud'hommes

- Principle: peer justice with conciliation board

- Judges elected every 5 years from union and federation lists

- Labor court: judges from labor union, judges from employer federation, same number of each (even total)

- 5 "sections" (at most): Agriculture, Manufacturing, Trade, Management and Service

- 264 Labour Courts spread over metropolitan France

Labour market outcomes and prud'hommes data set

- 4 rounds of prud'hommes elections 1987/1992/1997/2002
- Individual cases brought to prud'hommes from 1990 to 2004 (2 millions of cases)
- Each city (more than 36,000) are allocated to one court
- Labour flows: Insee Sirene files on establishments 1990-2004, with city
- For this paper, we focus on the period 1996-2003

Descriptive Statistics

Table 1: Judicial Indicators: Definition of Variables	
Names	Definition
Filing rate	Number of cases filed over number of dismissals
Worker Lawyer rate	Number of cases where the worker is represented by a lawyer over the total number of cases
Conciliation rate	Number of cases leading to a conciliation or an agreement between the parties over the total number of cases
Trial rate	Number of cases reaching the trial stage over the total number of cases
Winning rate	Number of cases won by the worker at trial over the total number of cases

Notes: These variables are computed at the jurisdiction level (jurisdiction*year)
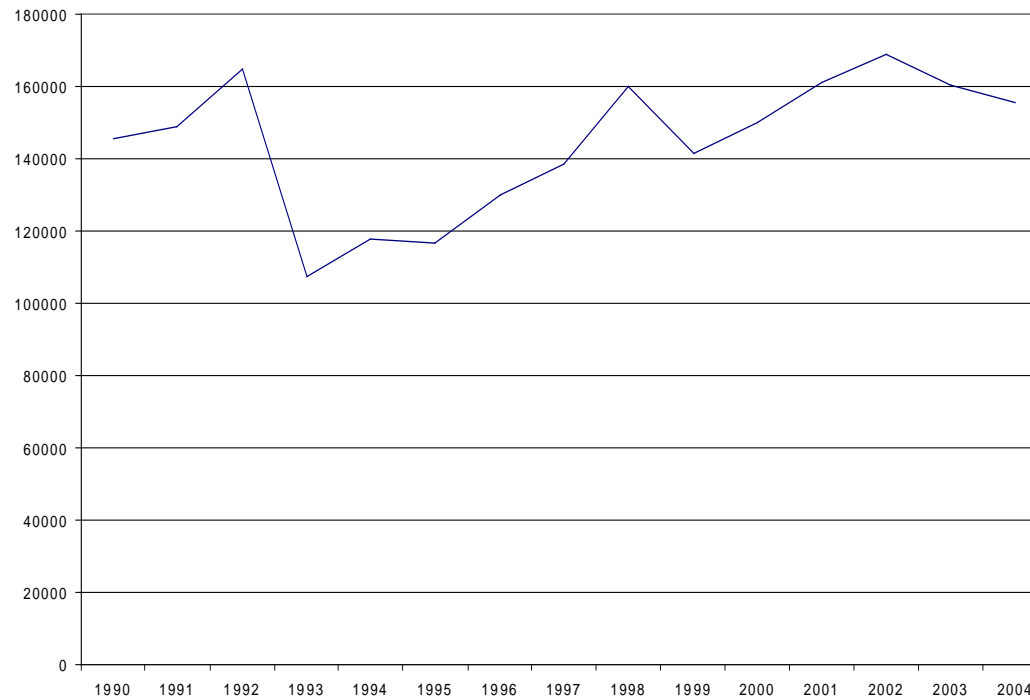
Descriptive Statistics

Table 2: Summary Statistics: Judicial Indicators and Job Flows

	Mean	Std.	Min	Max
Judicial Indicators :				
Filing rate	0.22	0.11	0.03	0.98
Worker Lawyer rate	0.48	0.15	0.00	0.95
Conciliation rate	0.20	0.09	0.00	0.77
Trial rate	0.61	0.10	0.19	0.95
Winning rate	0.45	0.09	0.09	0.93
Job Flows :				
Job Destructions	0.16	0.04	0.07	0.52
Job Creations	0.16	0.06	0.05	0.71
Net Job Creations	0.00	0.07	-0.63	0.43

Notes: Means of the jurisdition*year indicators, over the 264 jurisdictions and the years 1996-2003.

Descriptive Statistics

Figure 4: Number of filed cases

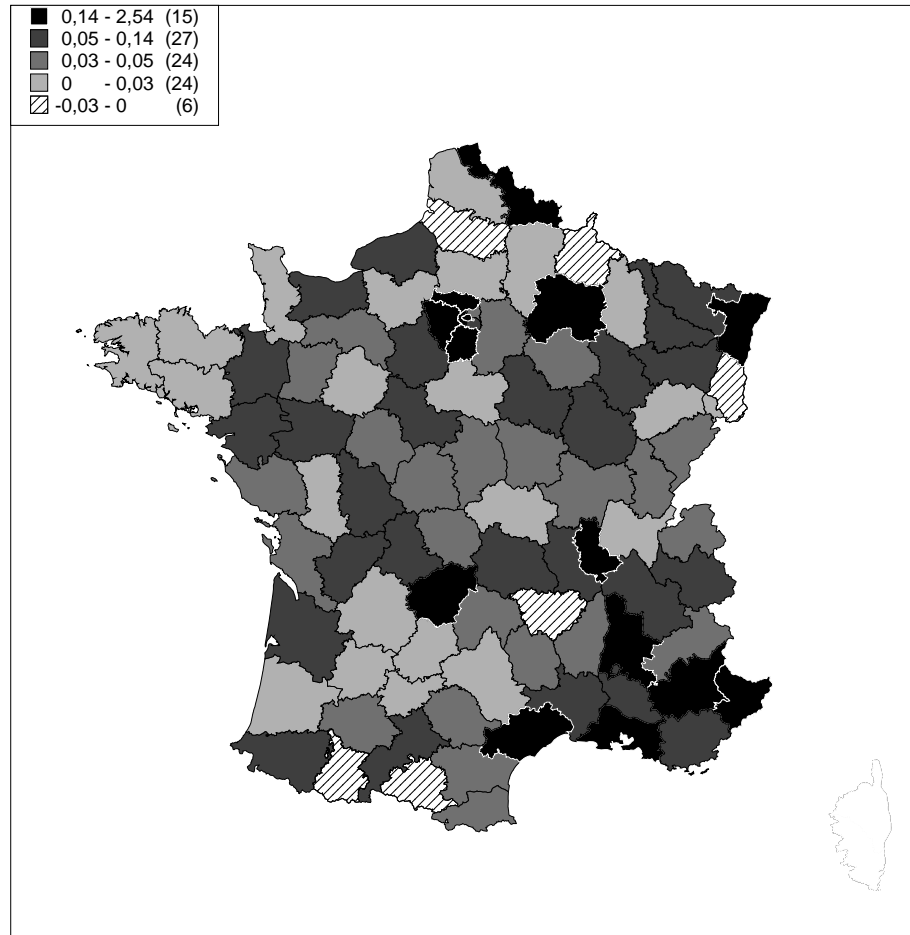Sources: Prud'hommes data from Ministry of Justice

Descriptive Statistics

Figure 5: Map of the universities training lawyers
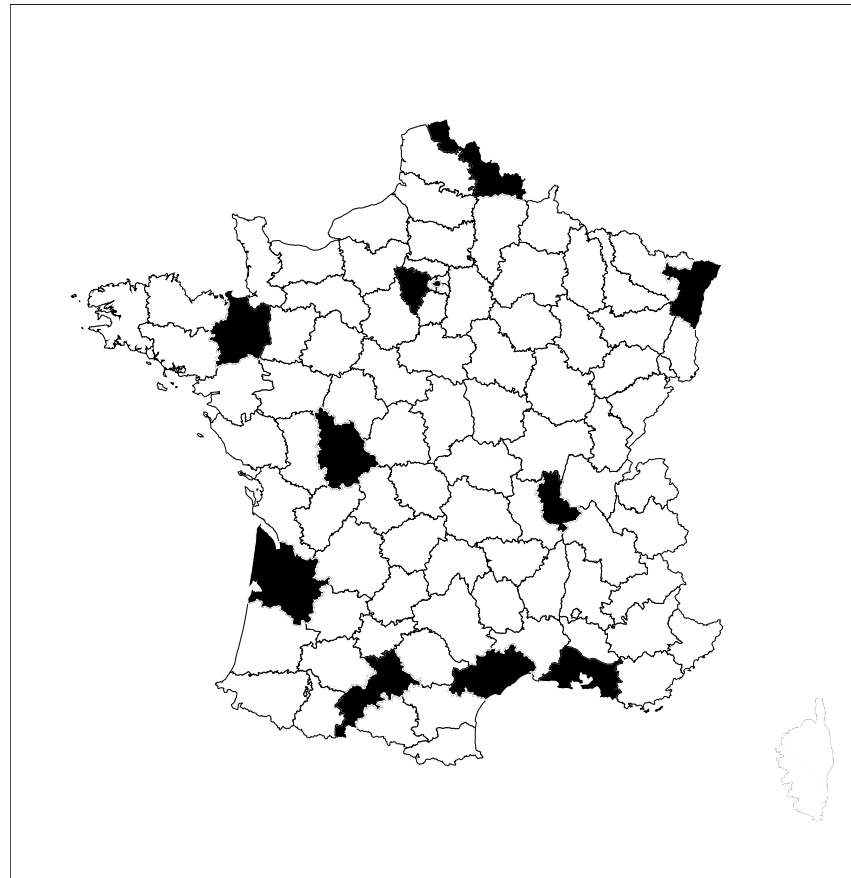
Descriptive Statistics

Figure 6: Map of the changes in the lawyer density between 1996 and 2003

Descriptive Statistics

Figure 8: Allocation of Judges (without the 6 Largest Jurisdictions)
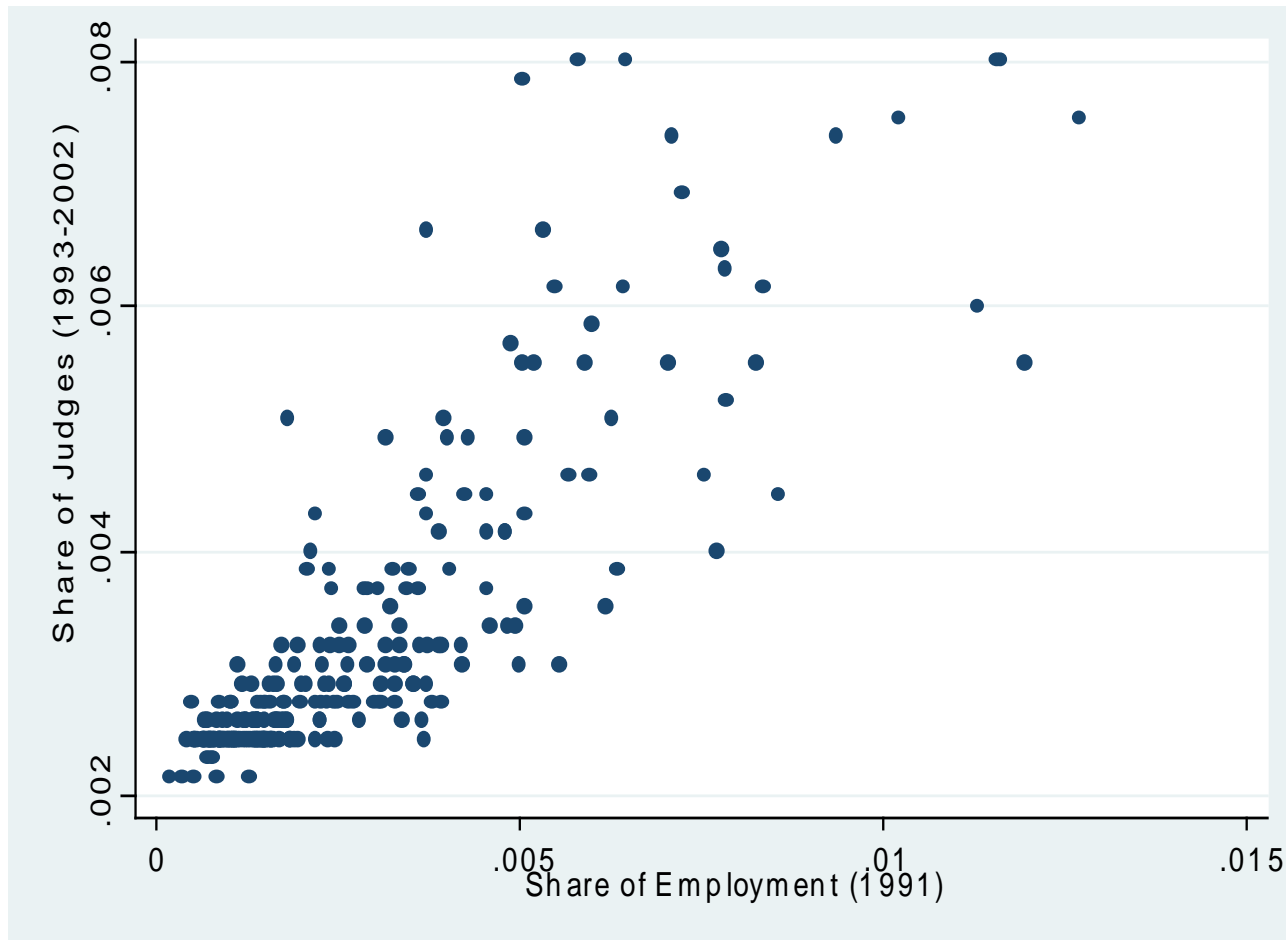
Descriptive Statistics

Figure 9: Productivity of Judges across Jurisdictions
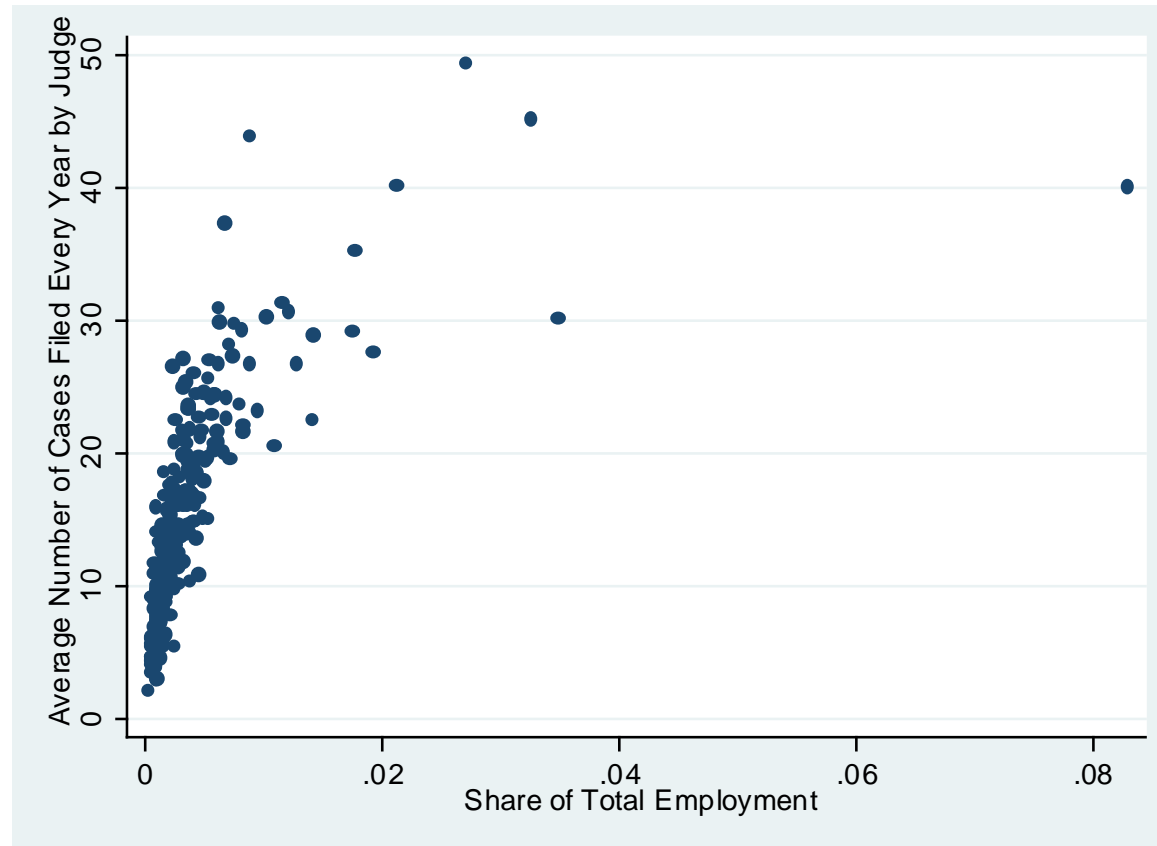
Descriptive Statistics

Table 3: Number of Judges by Section and Change over the Electoral Terms

	Number of judges in 1992	Change in % between term t and term t-1	
		1997/1992	2002/1997
Manufacturing	1,881	0	-9
Service	1,266	0	11
Trade	1,923	0	1
Management	1,406	0	4
Total	6,522	0	1

Descriptive Statistics

Table 4: Changes in the Numbers of Judges across the Sections of the 264 Jurisdictions

	2002 Election			
	Manufacturing	Service	Trade	All sections
lost 3 judges or more	7	0	0	8
lost 2 judges	8	0	0	11
lost 1 judges	27	1	25	22
no change	56	79	58	44
gained 1 judges	1	9	9	6
gained 2 judges	1	5	3	3
gained 3 judges or more	0	6	4	6
	100	100	100	100

Note: read as % of jurisdictions that lost (or gained or no change) x judges in the election year t

Using Instruments

- Instrumental approach:
  - We intend to estimate the following equation

$$Flows_{p,t} = \alpha_1 BC_{p,t} + \alpha_2 BC_{p,t-1} + \beta EPL_{p,t} + \delta_p + \gamma_t + \varepsilon_{p,t}$$

  - With EPL being a measure of judicial case outcomes
  - Because the BC component is endogenous, we use some Bartik, Blanchard-Katz strategy to replace Unemployment by a predicted value (see text)
  - Then, EPL is also endogenous in this equation…

Using Instruments

- Instrumental approach:
  - We use the following equation

$$EPL_{p,t} = \mu_1 BC_{p,t} + \mu_2 BC_{p,t-1} + \lambda Z_{p,t} + \delta_p + \gamma_t + \upsilon_{p,t}$$

  - With Z being instruments capturing the inputs and environment of employment protection:
    - Lawyers enrolled at the local bar (all specialties)
    - *Clerks and judges (centrally allocated)*

    All within the Prud'homme

    They shift the costs of litigation *(model section)*
  - Discuss Assumptions to go back to costs

Using Instruments: First-Stage

Table 5a: First Stage Regressions: Effect of Legal Inputs on Judicial Indicators

	Filing rate	Worker Lawyer rate	Conciliation rate	Trial rate	Winning rate
Lawyers	10.88***	5.556**	7.897***	-8.491***	-4.112***
	(1.661)	(2.704)	(2.101)	(2.743)	(1.434)
Judges	-154.1	567.8***	-123.0	376.0	372.5
	(138.4)	(211.4)	(278.4)	(257.7)	(220.6)
Staff	-0.204	19.25*	-10.76*	9.847	10.16
	(4.781)	(10.24)	(6.670)	(11.27)	(6.693)
R-squared	0.140	0.251	0.276	0.226	0.189
F-test of joint sgnificance (p-value)	14.69 (0.000)	5.66 (0.000)	8.44 (0.000)	3.91 (0.009)	4.6 (0.004)

Robust standard errors are between parentheses. * significant at 10%; ** significant at 5%, ***significant at 1%. Observations are for 264 jurisdictions and for the years 1996-2003 (2,112 obs.). Each regression includes jurisdiction and year fixed effects, and local business cycle indicators. 1999 labor force of the jurisdictions is used as weights. Clusters: jurisdiction level. F is the F statistic of the joint significance of the variables.

Using Instruments: First-Stage

Table 5b: First Stage Regressions: Effect of Legal Inputs on Judicial Indicators

	Filing rate	Worker Lawyer rate	Conciliation rate	Trial rate	Winning rate
Lawyers	10.39***	5.524*	7.331***	-7.539***	-3.864***
	(1.629)	(2.833)	(2.059)	(2.647)	(1.347)
R-squared	0.140	0.243	0.273	0.221	0.186
F-test of joint sgnificance (p-value)	40.68 (0.000)	3.8 (0.052)	12.67 (0.000)	8.11 (0.004)	8.21 (0.000)

Robust standard errors are between parentheses. * significant at 10%; ** significant at 5%, ***significant at 1%. Observations are for 264 jurisdictions and for the years 1996-2003 (2,112 obs.). Each regression includes jurisdiction and year fixed effects, and local business cycle indicators. 1999 labor force of the jurisdictions is used as weights. Clusters: jurisdiction level. F is the F statistic of the joint significance of the variables.

Reduced forms

Table 6: Judicial Indicators on Job Flows: Reduced-form Regressions

	Job Destructions	Job Creations	Net Job Creations
Lawyers	-5.734***	-0.832	4.902***
	(1.181)	(1.065)	(1.650)
Judges	-511.4***	-158.7*	352.7**
	(139.8)	(83.26)	(149.1)
Staff	6.863	-2.125	-8.989**
	(4.263)	(2.037)	(3.647)
R-square	0.433	0.457	0.565

Robust standard errors are between parentheses. * significant at 10%; ** significant at 5%, ***significant at 1%. Observations are for 264 jurisdictions and for the years 1996-2003 (2,112 obs.). Each regression includes jurisdiction and year fixed effects, and local business cycle indicators. 1999 labor force of the jurisdictions is used as weights. Clusters: jurisdiction level.

Not Yet Using Instruments: OLS

Table 7: Judicial Indicators on Job Flows: OLS Estimates

	Job Destructions	Job Creations	Net Job Creations
Filing rate	0.0169	-0.00703	-0.0239
	(0.0188)	(0.0126)	(0.0212)
R-square	0.43	0.48	0.59
Worker Lawyer rate	-0.0469**	-0.00588	0.0410**
	(0.0182)	(0.0103)	(0.0199)
R-square	0.41	0.47	0.56
Conciliation rate	-0.0439**	-0.00504	0.0389*
	(0.0222)	(0.0134)	(0.0221)
R-square	0.40	0.47	0.56
Trial rate	0.0363**	0.00431	-0.0320
	(0.0180)	(0.0114)	(0.0209)
R-square	0.40	0.47	0.56
Winning rate	0.0382**	0.00704	-0.0312
	(0.0185)	(0.0117)	(0.0211)
R-square	0.40	0.47	0.56

Robust standard errors are between parentheses. * significant at 10%; ** significant at 5%, ***significant at 1%. Observations are for 264 jurisdictions and for the years 1996-2003 (2,112 obs.). Each regression includes jurisdiction and year fixed effects, and local business cycle indicators. 1999 labor force of the jurisdictions is used as weights. Clusters: jurisdiction level.

Using Instruments: Instrumenting the Cycle ?

Table A.1: Judicial Indicators and the Business Cycle

	Filing rate	Worker Lawyer rate	Conciliation rate	Trial rate	Winning rate
Unemployment rate	0.897***	-0.876***	1.177***	-1.435***	-1.353***
	(0.108)	(0.0880)	(0.118)	(0.141)	(0.135)
R-squared	0.038	0.046	0.056	0.093	0.076

Robust standard errors are between parentheses. * significant at 10%; ** significant at 5%, ***significant at 1%. Observations are for 264 jurisdictions and for the years 1996-2003 (2,112 obs.). Each regression includes jurisdiction and year fixed effects. 1999 labor force of the jurisdictions is used as weights. Clusters: jurisdiction level.

Using Instruments: Reverse Causality ?

Table A.2: The Impact of Past Labor Flows on Lawyer, Judge and Staff Densities

	Lawyers	Judges	Staff
Job Destructions (-1)	-0.0004	-0.0000	0.0000
	(0.0003)	(0.0000)	(0.0001)
Job Destructions (-2)	-0.0002	-0.0000	-0.0000
	(0.0002)	(0.0000)	(0.0001)
R-squared	0.11	0.01	0.12
	Lawyers	Judges	Staff
Job Creations (-1)	0.0001	-0.0000	0.0001
	(0.0004)	(0.0000)	(0.0001)
Job Creations (-2)	0.0006	0.0000	-0.0000
	(0.0006)	(0.0000)	(0.0001)
R-squared	0.11	0.00	0.12
	Lawyers	Judges	Staff
Net Job Creations (-1)	0.0003*	0.0000	0.0000
	(0.0002)	(0.0000)	(0.0001)
Net Job Creations (-2)	0.0005	0.0000	0.0000
	(0.0003)	(0.0000)	(0.0001)
R-squared	0.11	0.00	0.12
Observations	2112	2112	2112

Robust standard errors are between parentheses. * significant at 10%; ** significant at 5%, ***significant at 1%. Each regression includes jurisdiction and year fixed effects. 1999 labor force of the jurisdictions is used as weights. Clusters: jurisdiction level.

Using Instruments: IV results

Table 8: Judicial Indicators on Job Flows: 2SLS Estimates

	Job Destructions	Job Creations	Net Job Creations
Filing rate	-0.674***	-0.272**	0.402*
	(0.179)	(0.131)	(0.214)
Instruments : Lawyers			
R-square	0.215	0.314	0.459
Worker Lawyer rate	-1.132*	-0.191	0.941
	(0.603)	(0.159)	(0.629)
Instruments : Lawyers			
R-square	0.201	0.172	0.286
Worker Lawyer rate	-1.065***	-0.205*	0.859**
	(0.373)	(0.116)	(0.371)
Instruments : Judges			
R-square	0.375	0.355	0.56
Conciliation rate	-0.853***	-0.144	0.709**
	(0.297)	(0.142)	(0.314)
Instruments : Lawyers			
R-square	0.443	0.411	0.246
Conciliation rate	-0.772***	-0.0699	0.702***
	(0.216)	(0.129)	(0.268)
Test of overidentifying restrictions (p-value)	0.805	0.151	0.856
Instruments : Lawyers and staff			
R-square	0.278	0.446	0.253
Trial rate	0.829**	0.140	-0.689**
	(0.344)	(0.168)	(0.278)
Instruments : Lawyers			
R-square	0.735	0.401	0.132
Winning rate	1.617***	0.273	-1.345**
	(0.608)	(0.305)	(0.541)
Instruments : Lawyers			
R-square			

Grenoble Brenner's Experiment

Table 9: Impact of the Conciliation Rate: Difference-in-Difference Estimates of the Brenner Experiment

	Job Destructions	Job Creations	Net Job Creations	Conciliation rate
Treatment Group: Jurisdiction of Grenoble				
Control Group: Rest of France				
Observations = 3393 (263 juridisctions)				
Grenoble*Post1998	-0.0371***	-0.0297***	0.00732***	0.0833***
	(0.00185)	(0.00171)	(0.00178)	(0.00389)
R-square	0.332	0.376	0.463	0.109
Control Group: Jurisdictions of Similar Size				
Observations = 494 (38 jurisdictions)				
Grenoble*Post1998	-0.0414***	-0.0352***	0.00624	0.0642***
	(0.00335)	(0.00376)	(0.00388)	(0.00630)
R-square	0.384	0.499	0.560	0.297
Control Group : Jurisdictions within Contiguous Départements				
Observations = 416 (32 jurisdictions)				
Grenoble*Post1998	-0.0206***	-0.0167***	0.00384	0.0711***
	(0.00377)	(0.00282)	(0.00409)	(0.00779)
R-square	0.408	0.619	0.604	0.180

Robust standard errors are between parentheses. * significant at 10%; ** significant at 5%, ***significant at 1%. Each regression includes jurisdiction and year fixed effects. Clusters: jurisdiction level. Grenoble is a variable equal to 1 for the jurisdiction of Grenoble. Post1998 is a variable equal to 1 if the year of observation is after 1998. Grenoble*Post1998 is a variable equal to 1 for the jurisdiction of Grenoble after 1998. This is the difference-in-difference variable of interest.

Using Instruments: IV results (falsification)

Table 10a: First Stage Regressions at the 'département' level

	Filing rate	Worker Lawyer rate	Conciliation rate	Trial rate	Winning rate
Lawyers	-12.44	19.04***	18.02***	-11.05**	-2.230
	(8.828)	(4.002)	(3.700)	(4.700)	(4.225)
R-squared	0.535	0.377	0.274	0.249	0.174
F-test of joint sgnificance	1.990	22.67	23.75	5.532	0.279

Robust standard errors are between parentheses. * significant at 10%; ** significant at 5%, ***significant at 1%. Observations are for 93 Départements and for the years 1996-2002 (651 obs.). Each regression includes département and year fixed effects, and local business cycle indicators. 1999 labor force of the jurisdictions is used as weights. Clusters: département level.

Using Instruments: IV results (falsification)

Table 10b: 2SLS Estimates: Falsification Test

	Job Destructions	Job Creations	Net Job Creations	Dismissed persons with seniority less than 2 years
Worker Lawyer rate	-0.225*	-0.198*	0.0273	-0.0364
	(0.139)	(0.117)	(0.0948)	(0.0442)
Instruments: Lawyers				
R-square	0.306	0.460	0.508	0.382
Conciliation rate	-0.235	-0.208	0.0271	-0.00386
	(0.209)	(0.167)	(0.105)	(0.0584)
Instruments: Lawyers				
R-square	0.317	0.494	0.504	0.400

Robust standard errors are between parentheses. * significant at 10%; ** significant at 5%, ***significant at 1%. Observations are for 93 Départements and for the years 1996-2002 (651 obs.). Dismissed persons with few seniority is the ratio of workers laid-off within the year with a job tenure of less than 2 years. By law, these workers can not obtain the minimum of 6 months of severance payment but only compensatory awards. Each regression includes département and year fixed effects, and local business cycle indicators. 1999 labor force of the jurisdictions is used as weights. Clusters: département level.

Conclusion

• Not all measures of judicial cases outcomes are indeed positive measures of EPL: some that look like measuring EPL are in fact Employment Flexibility Legislation (trial rate)
• We should not be surprised that it varies across countries
• The Rachida Dati's "Reform"