

1 Non-Compete Agreements limit labor market choice set of inventors

Non-competes agreements (NCAs) constrain employees such that they are less able to freely work for industry competitors. They usually have an **industry scope**. Example, Lockheed Martin:

“during the two-year period following the termination date, I will not be employed by or provide services to a Restricted Company, and oversee or affect the design, operation, research, manufacture, sale or distribution of competitive products or services”

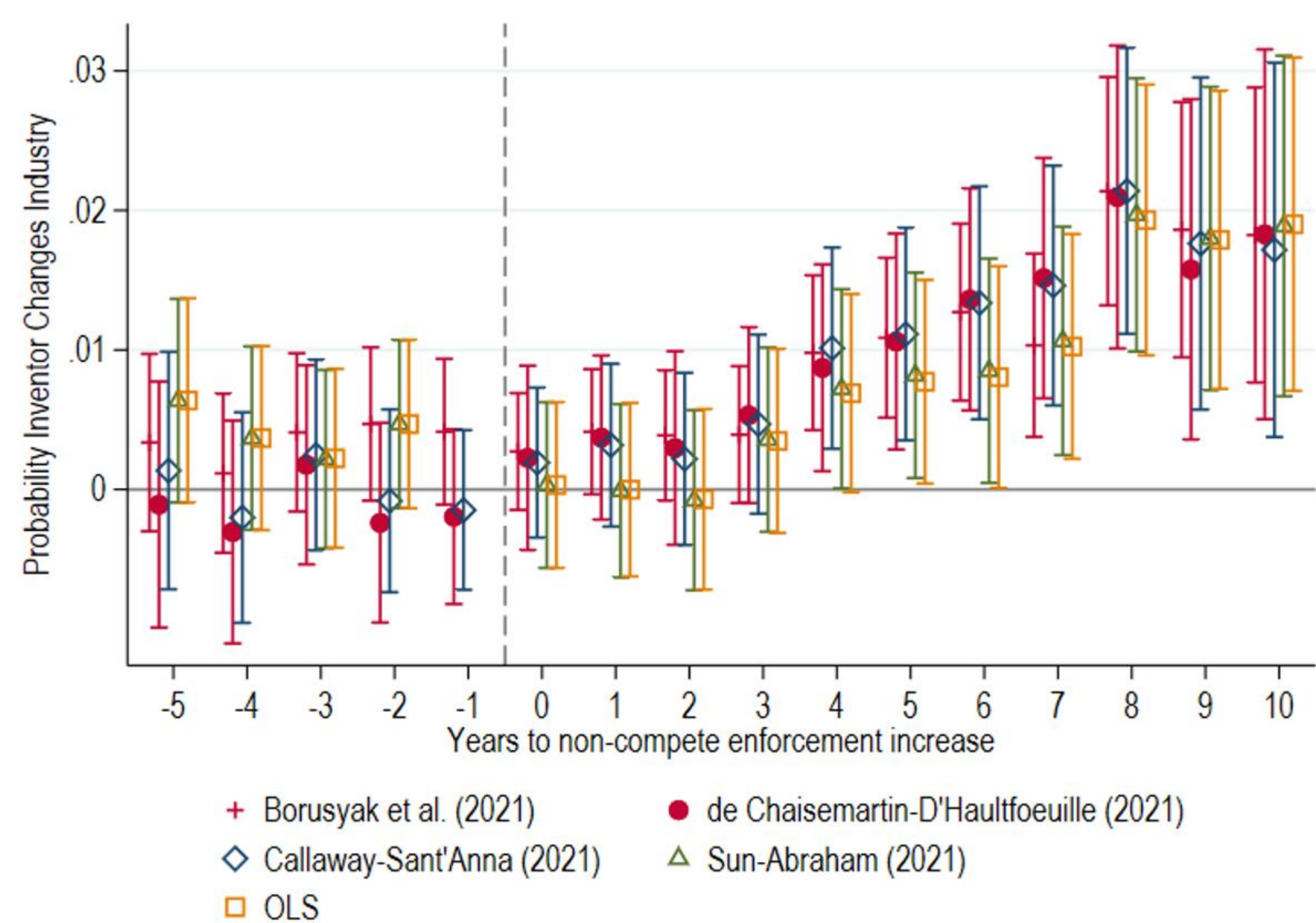
2 How do inventors react when their NCA becomes more binding?

- **Inventor-year panel** to analyze long-run employment choices of individual inventors.
- Variable of interest: Mobility of an inventor to **a different employer** in a **different industry** (e.g. SIC 3 digit code)

3 Variation: NCA enforcement increases

Identification: 9 staggered increases in NCA enforceability across US states: either state laws or precedent-setting court decision. Example: Florida 1996 legislation strengthened NCAs and clarified that they are enforceable as long as they protect “legitimate business interests”

4 Inventors move to another industry after increased NCA enforcement



6 What characterizes such reallocations?

I compare inventors who move to a different industry **after** an increase in NCA enforceability (**constrained**) to inventors who move to a different industry without a change in NCA enforceability (**unconstrained**). Comparing **NCA-constrained** to **unconstrained** inventors, I find evidence of:

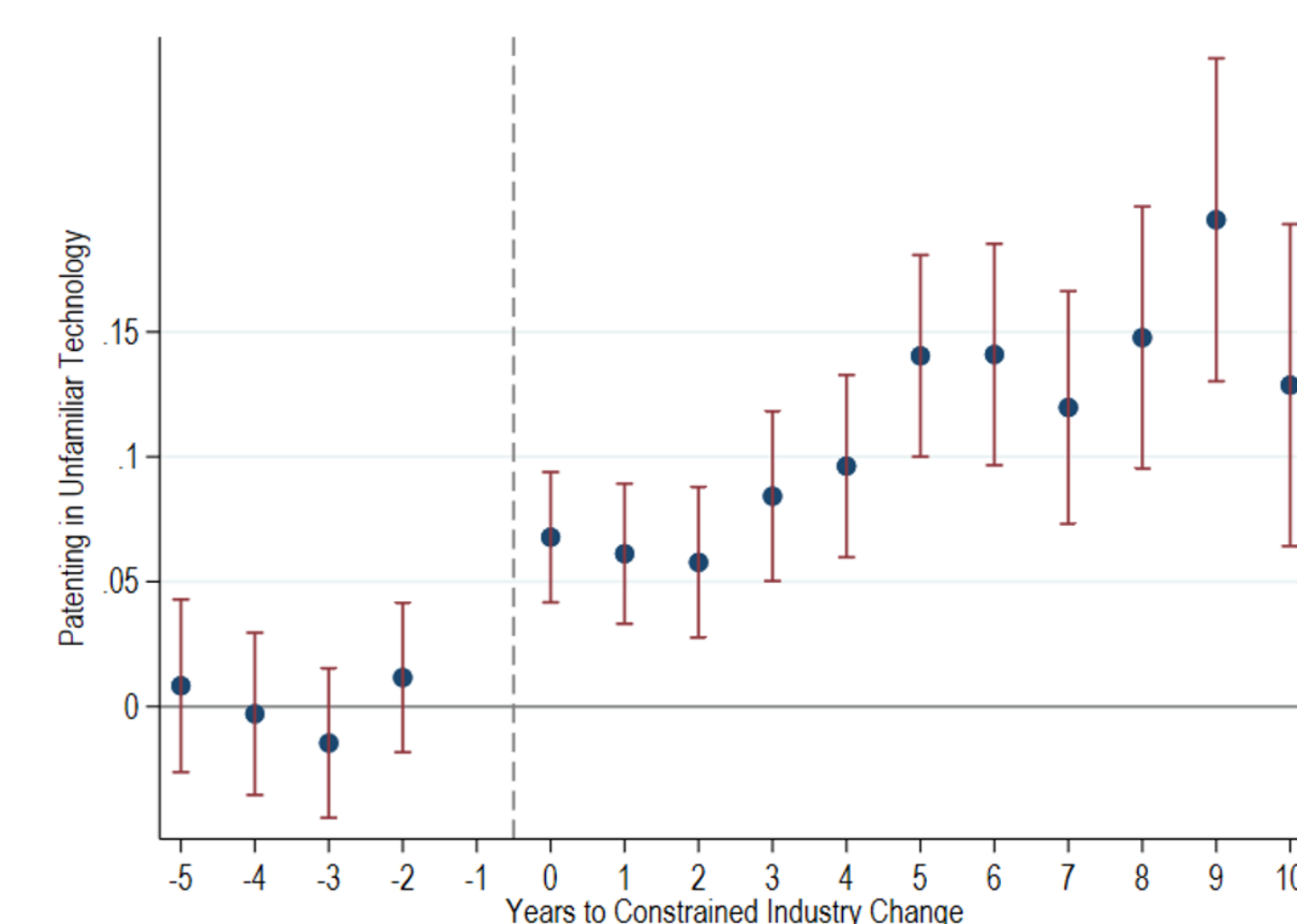
- Inventors move to new employers who are less likely to **rely on NCAs**:

Dependent variable:	EmployerNCA
<i>NCAIncrease</i>	-0.05*** (-2.90)
Observations	37,179
R-squared	0.09
Year FE	YES

- **Inventor** and **new employer** are characterized by **worse matching quality**:

Dependent variable:	Technology Cosine Similarity
<i>NCAIncrease</i>	-0.08*** (-6.67)
Observations	53,179
R-squared	0.03
Year FE	YES

- Inventors patent in (to them) **unfamiliar patent technology**:



7 Compliers subsequently perform worse

I first run inventor-level regressions as follows:

$$Productivity_{i,t} = \beta_i \times Post_{i,t} + \theta_i + \varepsilon_{i,t}$$

where productivity is measured as yearly citation-weighted patents or the economic value of patents on an inventor-year level.

The specification includes an inventor fixed-effect. The relevant coefficient is β_i which captures the productivity difference after the inventor moves to another industry. I use the coefficients obtained from these regressions and test whether NCA-constrained moves are associated with declines in productivity:

Dependent variable:	Future Productivity (KPSS)	Future Productivity (Citations)
<i>NCAIncrease</i>	-0.21*** (-4.19)	-0.10*** (-3.32)
Constant	0.02	0.26
Observations	24,858	24,858
R-squared	0.00	0.01
Year FE	YES	YES

Labor market regulation in the form of more enforceable non-competes agreements leads to a decline in innovation output.

In a Nutshell

- Inventors react to **more enforceable non-competes agreements** by moving to a new employer in a more distant product market. Inventors thus effectively bypass their non-competes agreements.
- Economic size: 1 in 100 additional inventors move across industries per year (25% increase in probability).
- Such career moves are associated with **worse matching quality**, inventors patent in **less familiar technology classes**. Inventors seem to move to new employers who are **less likely to rely on non-competes**.
- Inventors who move to more distant new employers subsequently perform **10-20% worse**. Thank you for reading my poster.

Feedback welcome

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Any feedback, comments, criticism is very much appreciated.

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