

# Optimal enforcement of non-competes

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# Motivation

- ▶ A non-compete is part of an employment contract that restricts an employee from working for a competitor for a certain amount of time after leaving their current employer (usually 1-2 years)
  - ▶ Protect IP (NDAs hard to enforce)
  - ▶ Restrict flow of knowledge
  - ▶ and many other effects... (e.g. worker bargaining power, market concentration, incentives for human capital accumulation)
- ▶ Very prevalent
  - ▶ 70% of senior executives (Garmaise 2011)
  - ▶ Nearly 50% of engineers (Marx 2011)

# Motivation

- ▶ Differing enforcement regimes across U.S. states 7
  - ▶ Emerging consensus that Silicon Valley, CA displaced Rt. 128, MA as high-tech hub due to non-enforcement (Saxenian 1994, Gilson 1999, etc.)
  - ▶ Oct 2016 - Obama administration “call to action” to state legislatures to reduce enforcement of non-competes
  - ▶ 11 state legislatures currently considering weakening enforcement; some Federal laws already passed
- ▶ Non-enforcing regimes
  - ▶ Grow more in response to exogenous increases in supply of VC funding (Samila-Sorenson 2011)
  - ▶ Have more mobile workforces (Fallick et al. 2006, Garmaise 2011, Marx et. al 2009)
  - ▶ Make small firms more able to compete with large firms, leading to less market concentration (Kang-Fleming 2017)
  - ▶ Employees have better lifetime wage profiles (Chang et al. 2017)

# Theoretical work

- ▶ Paper showing reallocation from enforcing to non-enforcing in second period, consistent with SV vs. Rt 128 story (citation)
- ▶ Some theory showing potential advantages of not having non-competes
  - ▶ Allows for reallocation of skilled labor when uncertainty about firm “experiments” is resolved
- ▶ Not difficult to write a model in which non-competes make knowledge worth nothing  $\rightarrow$  no growth
- ▶ So all depends on parameters and strength of different mechanisms

# Optimal enforcement

- ▶ Empirical evidence seems to suggest optimal not to enforce
  - ▶ Contrary to intuition about the benefit of having free contracts
- ▶ Theoretical work has less clear conclusions
- ▶ But what about spillovers?
  - ▶ Most charitably: non-enforcing states “do better” than enforcing states, and states “do better” when they exogenously switch from enforcement to non-enforcement
  - ▶ “Crowding out” story: brain drain to non-enforcing regimes after exogenous shift to enforcing regime (Marx 2015)
- ▶ How to rule out this explanation?
  - ▶ Even with exogenous changes, no “control” for the entire USA
  - ▶ Need a (well-calibrated) model of the aggregate economy
  - ▶ Welfare analysis

# Methodology

- ▶ For now:
  - ▶ Klette & Kortum 2004 style model endogenizing knowledge spillovers via workers leaving incumbents to start rival startups
  - ▶ Non-enforcement leads to faster knowledge spillovers, but reduces value of knowledge, disincentivizing R&D (c.f. Arrow 1962)
  - ▶ Goal: calibrate using LEHD, Crunchbase, LinkedIn data
  - ▶ Test model by seeing extent to which it can reproduce cross-sectional empirical results in the data
  - ▶ Counterfactual productivity growth and welfare analysis
- ▶ Future work:
  - ▶ Multiple incumbents competing over workers
  - ▶ Worker human capital accumulation
  - ▶ Endogenous contracting (for now, simply assume that non-competes are used in enforcing regimes)

# Enforcement

Figure: Map of enforcement across US states

