

Getting labor markets right: outside options and occupational mobility

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Overview

- We develop a methodology that measures **worker mobility** across occupations and uses it to identify **local labor markets**.
- This enables researchers and policymakers to measure the value of local **outside options** for different worker groups
- We find that when workers have better opportunities outside of their current occupation, they get higher wages *in* their current occupation

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- Workers are very mobile across occupations: 24% of all job changes are to a new occupation. In any given year, 11% of all workers change their occupation.
- Current practice of using a single occupation to define labor markets is inadequate

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- We use the thickness of occupational connections revealed by the moves on worker resumes to define a **“probabilistic” local labor market**:
- **Our definition:** *All the local occupations that a worker could move to, weighted by the observed probability of moving into them.*

Example: Urban & Regional Planners

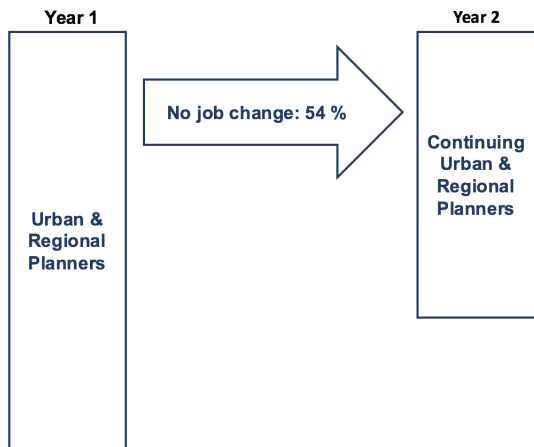
Example: Urban & Regional Planners

Year 1

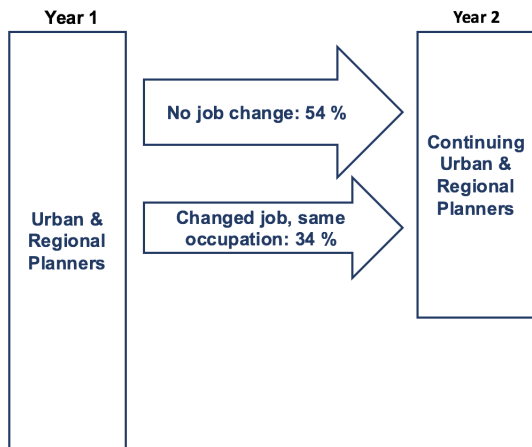
**Urban &
Regional
Planners**



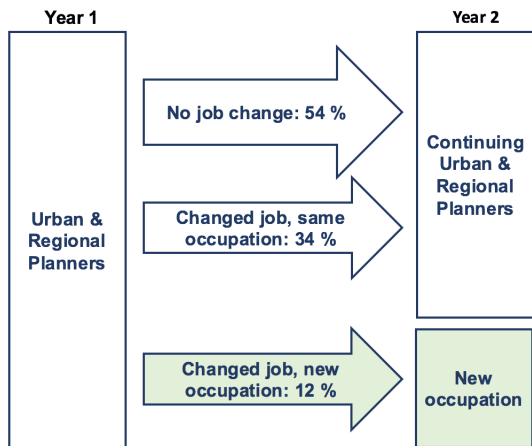
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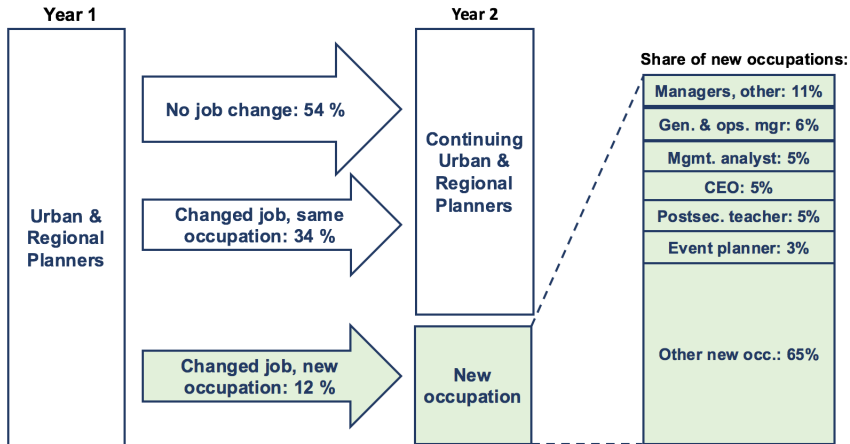
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'Stickiest' and 'least sticky' large occupations (2002-2018)

Occupation	Leave share (%)	Main target occ.
Dental hygienists	6	Dental assistants
Nurse practitioners	9	Registered nurses
Pharmacists	9	Medical & health svc mgrs.
Firefighters	10	EMTs & paramedics
Self-enrichment educ. teachers	10	Teachers/instructors, all other
Physical therapists	11	Medical & health svc mgrs.
:	:	
Counter attendants, food	32	Retail salespersons
Bill and account collectors	32	Customer service rep.
Tellers	32	Customer service rep.
Machine setters, operators & tenders (metal & plastic)	32	Production workers, other
Telemarketers	36	Customer service rep.
Food servers, nonrestaurant	45	Waiters and waitresses

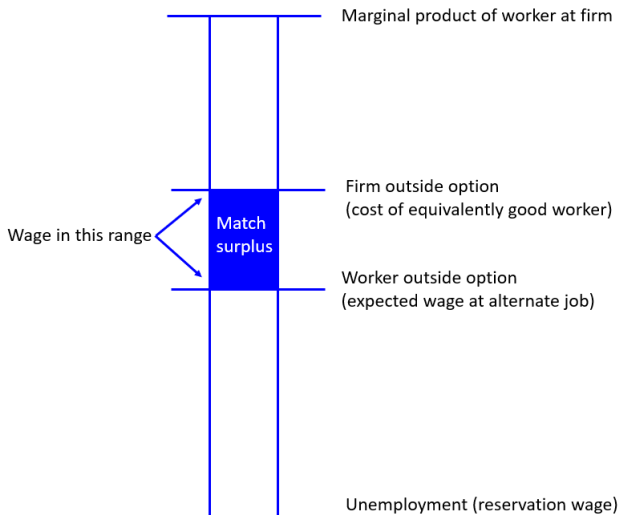
'Share leaving' is the number of people observed in occupation i in year T who are observed in any other occupation in year $T + 1$, as a share of all job switchers.

How does a person's labor market affect their wages?

Labor economists often think of wage determination as a negotiation over a “match surplus” where both sides have ‘power’ and **outside options**:

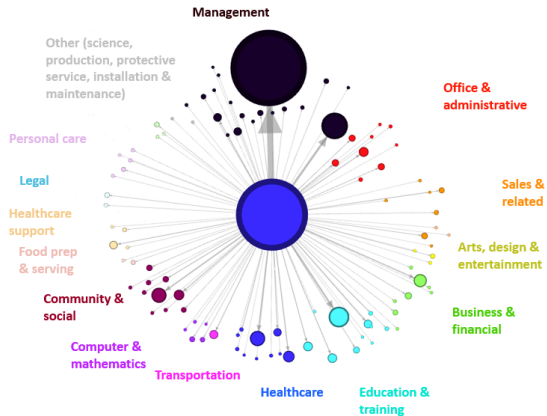
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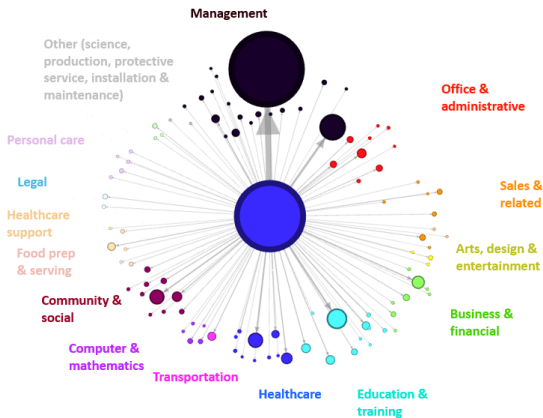
Registered Nurses example

Which occupations do registered nurses go to?



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Which occupations do registered nurses go to?



⇒ Nurses have better bargaining outside options if there are **many** local health service management jobs that have **high wages**.

Better outside options leads to higher wages

- Our measure of local **outside options**: the weighted-average wage for the jobs in a person's labor market outside of their current occupation
 - ▶ Weights are relevance of each other occupation (=transition probability) and number of local jobs in other occupation

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- ...even when focusing only on plausibly exogenous variation in local outside options due to national wage trends

Labor market concentration and wages

- There is rising concern that higher employer concentration (fewer, larger employers) leads to lower local wages

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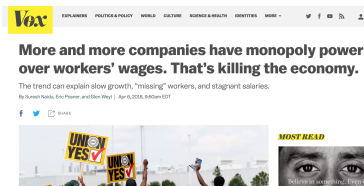
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Instead of bidding up wages, firms collude to keep pay low and enforce noncompete clauses.

By Jason Furman and Alan B. Krueger
Nov. 3, 2014 7:33 p.m. ET




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More and more companies have monopoly power over workers' wages. That's killing the economy.


The trend can explain slow growth, "missing" workers, and stagnant salaries.

By Sarah Nadeau, Eric Posner, and Glen Weyl | Apr 6, 2018, 9:50am EDT

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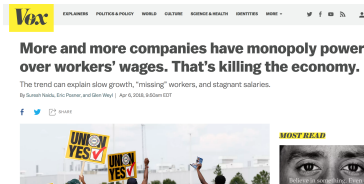


Labor market concentration and wages

- There is rising concern that higher employer concentration (fewer, larger employers) leads to lower local wages



The screenshot shows the WSJ Opinion page for an article titled "Why Aren't Americans Getting Raises? Blame the Monopsony". The article is a commentary by Jason Furman and Alan B. Krueger, dated Nov. 3, 2016. The sub-headline reads: "Instead of bidding up wages, firms collude to keep pay low and enforce noncompete clauses." The page includes a navigation bar with categories like Politics, Economy, Business, Tech, Markets, Opinion, Life & Arts, Real Estate, and WSJ Magz. There are also social media sharing icons and a "Subscribe 60% OFF" button.



The screenshot shows the Vox website for an article titled "More and more companies have monopoly power over workers' wages. That's killing the economy." The article is by Sarah Naidu, Eric Posner, and Glen Weyl, dated Apr. 6, 2016. The sub-headline reads: "The trend can explain slow growth, 'missing' workers, and stagnant salaries." The article includes social media sharing icons and a "MOST READ" section with a thumbnail image of eyes.

- Implied mechanism: Fewer, larger employers \Rightarrow more bargaining power \Rightarrow lower wages

Labor market concentration effects are heterogeneous

Empirical findings:

- **Mobility matters:** Employer concentration has a bigger negative effect on wages for the **least mobile** occupations

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- Neglecting the effect of outside options on wages will overestimate the importance of concentration for wages

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Additional policy examples:

- Target support to workers with worse outside options
- Shocks will spill over to wages in occupations that are in the same labor market

Appendix

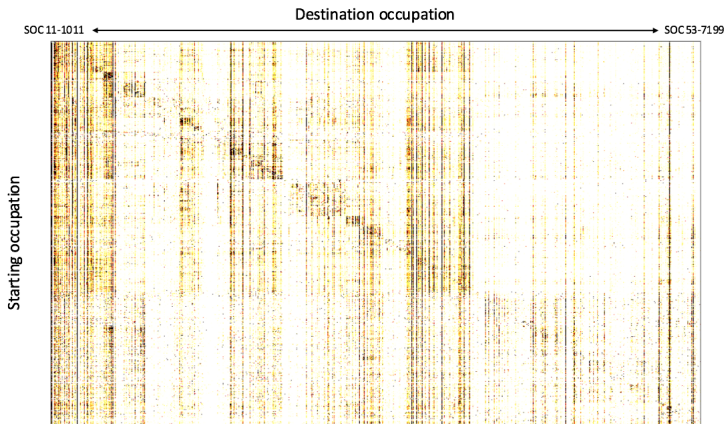
Labor market concentration example

Example:

- *Tree trimmers and pruners* face the same level of concentration among employers as *Optometrists* in Columbus, OH - corresponding to ca. 3 large employers splitting the market
- But tree trimmers are much more mobile: 30% find a job in a new occupation when changing jobs; for optometrists mobility is only 17%

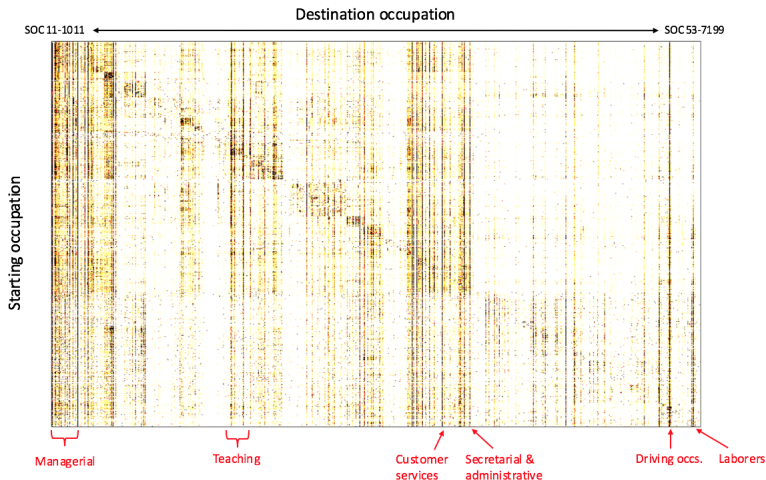
⇒ Potential for large employer to pay lower wages *relative to their productivity* is higher for optometrist than for tree trimmers because the latter are more mobile

Occupational transitions heatmap: 6-digit



SOC 6-digit occupations. Matrix shows probability of transition 2002-2015 conditional on switching jobs. Transition shares from occupation to itself $t_{i,i}^1$; set to 0 for ease of viewing other transitions.

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① Lateral moves into closely related occupations

Example:

- ▶ 34% of computer programmers who leave become web developers, software developers, or another computer occupation

How are people moving between occupations?

- 1 **Lateral moves into closely related occupations**
- 2 **Career progression**

Example:

- ▶ 16% of human resources specialist who leave become human resource managers
- ▶ 12% of mechanical engineers who leave become engineering managers

How are people moving between occupations?

- ① **Lateral moves into closely related occupations**
- ② **Career progression**
- ③ **Occupational similarity in tasks**

Example:

- ▶ 21% of biological scientists who leave become operations research or management analysts

How are people moving between occupations?

- 1 **Lateral moves into closely related occupations**
- 2 **Career progression**
- 3 **Occupational similarity in tasks**
- 4 **Occupational similarity in amenities**

Example:

- ▶ 7% of archivists and 20% of proofreaders and copy markers become writers