The Allocation of Talent and U.S. Economic Growth

Econometrica 2019 – Hsieh, Hurst, Jones, and Klenow

The Allocation of Talent

White Men in 1960:

94% of Doctors, 96% of Lawyers, and 86% of Managers

White Men in 2010:

63% of doctors, 61% of lawyers, and 57% of managers

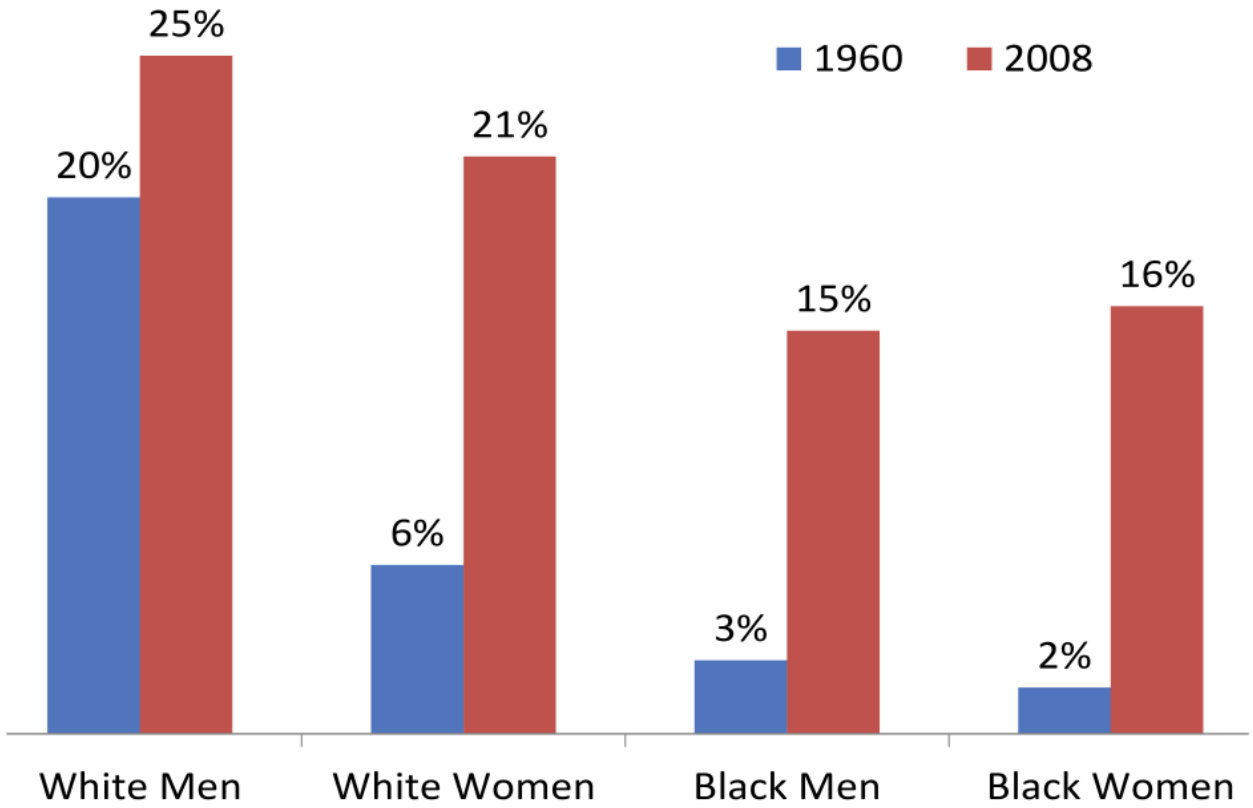
Sandra Day O'Connor, Ruth Bader Ginsburg,
David Blackwell (contraction mapping fame)...

Our question

- Suppose distribution of talent for each occupation is **identical** for whites, blacks, men, and women.
- Then:
  - Misallocation of talent in both 1960 and 2010.
  - But *less* misallocation in 2010 than in 1960.
- *Changes* in occupation shares over time reveal changes in misallocation

How much of productivity growth between 1960 and 2010 was due to the improved allocation of talent?

Share of Each Group in High Skill Occupations



All groups should have the same share in high-skilled occupations

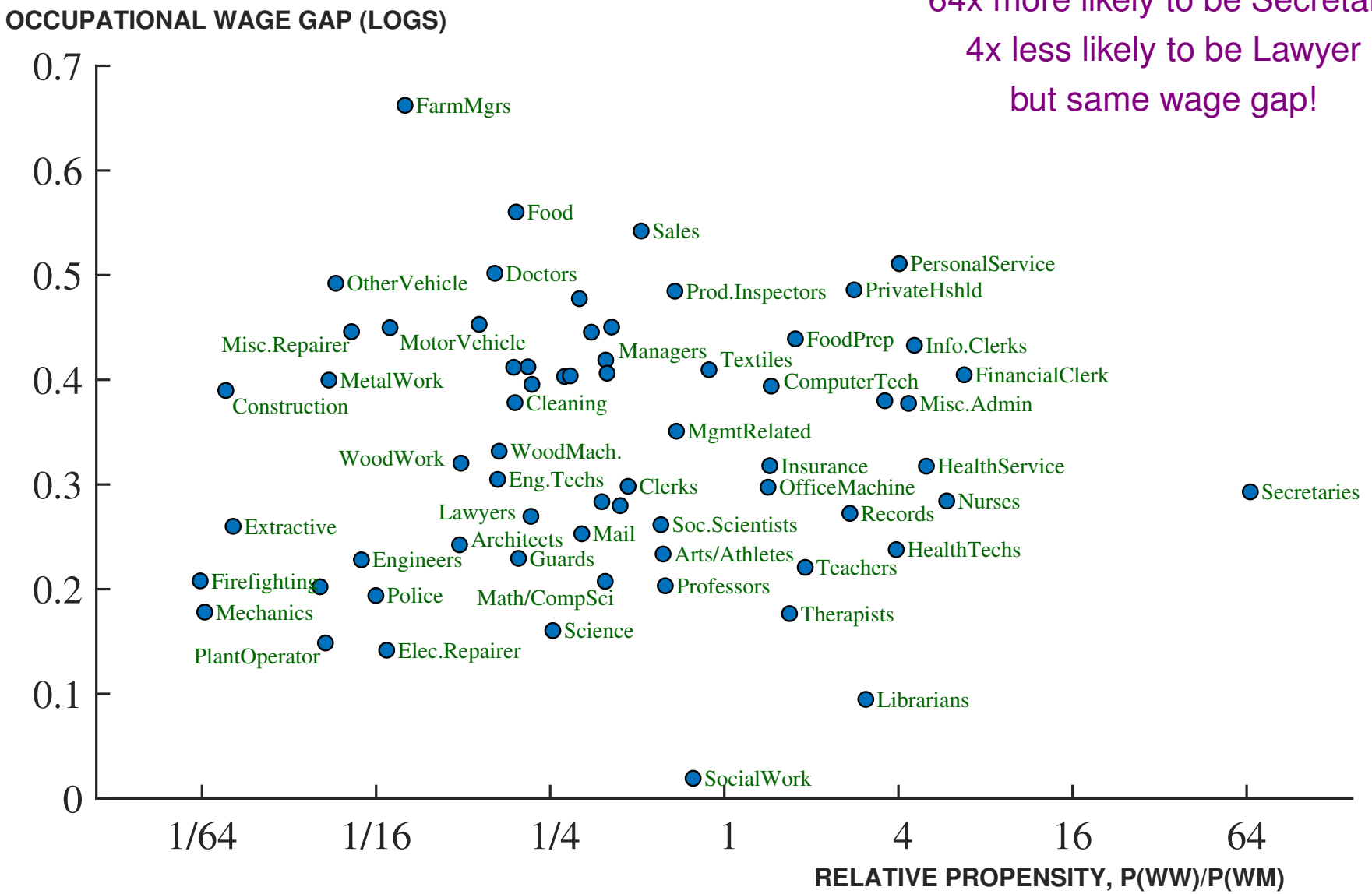
(Lawyers, doctors, engineers, scientists, architects, mathematicians and managers.)

Framework and Data

- Eaton and Kortum (2002 ECMA) applied to occupational choice
  - Each person draws a random talent in each occupation
  - Same distribution for all groups
- People choose schooling and occupation subject to human capital and labor market “taxes”
- Deviations of occupational shares from population shares reveal barriers
  - E.g. occupations should all be 50/50 women/men
- Data from Decennial Census and American Community Survey (IPUMS)

Wage Gaps and Relative Propensities (Women in 1980)

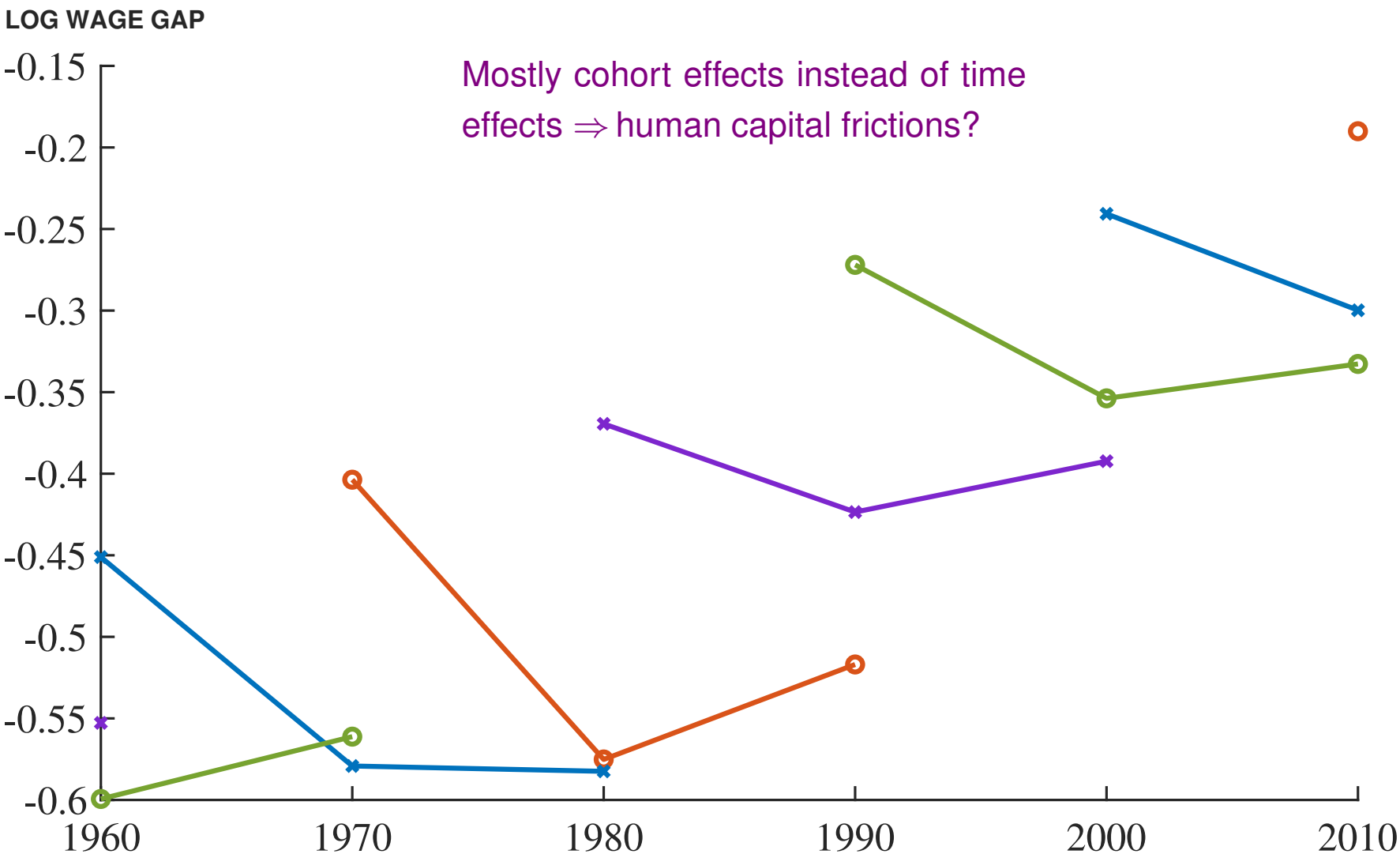
64x more likely to be Secretary
4x less likely to be Lawyer
but same wage gap!



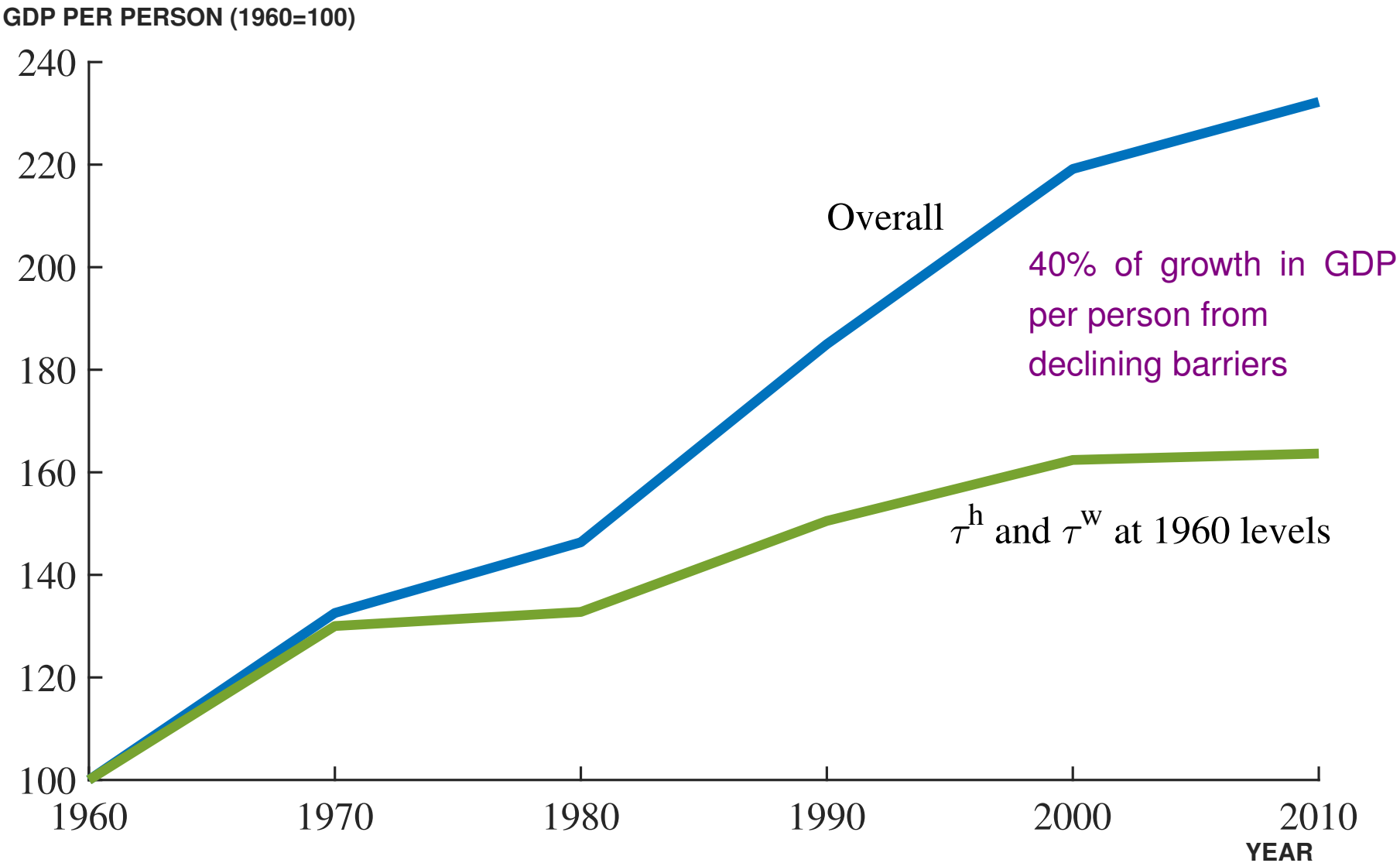
How to understand the preceding graph...

- Basic model: wage gaps and relative propensities are uncorrelated
- The key is **selection**
  - Women lawyers face large barriers $\Rightarrow$ only the best become lawyers
  - Women are encouraged to be secretaries, so many do, including those who are less talented
  - With a Fréchet distribution of talent, these selection effects precisely offset the direct "tax" effect...
  - ... so wage gaps and propensities should be uncorrelated
- Basic model
  - Wage gaps: depend on average of barriers across all occupations
  - Relative propensities: depend on the barriers in each occupation

Female Wages Gaps Relative to White Men by Time and Cohort



Economic Growth and the Allocation of Talent



How much did growth benefit from declining barriers?

	—— *annual rates* ——			
	Actual Growth	Growth with 1960 barriers	Difference	Share
GDP per person	1.7%	1.0%	+0.7%	**41%**
GDP per worker	1.2%	0.9%	+0.3%	**24%**
LF Participation	0.4%	0.0%	+0.4%	**90%**
Earnings of WM	0.9%	1.0%	-0.1%	**-12%**
Earnings of WW	3.2%	0.7%	+2.5%	**77%**
Earnings of BM	2.2%	1.6%	+0.6%	**29%**
Earnings of BW	4.3%	2.1%	+2.2%	**51%**

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Moving to *zero* barriers would raise GDP by an additional 10 percent.

Conclusion

- The U.S. does not have a perfect allocation of resources
- A surprisingly large amount of growth between 1960 and 2010 results from declining barriers and the improved allocation of talent
  - 40% of growth in GDP per person
  - 24% of growth in GDP per worker
- This same idea can be applied in many contexts
  - The allocation of talent within other countries
  - The allocation of talent across countries

[link to the paper]