Diversity and Global Policy: Economic Performance

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Recap of the Last Lecture

Men and women differ in terms of political preferences, but women are seriously underrepresented in politics.

What if we increase the share of female political leaders?

Hard question to answer, but RDDs are a clever way of estimating causal effects using mixed-gender close elections.

- In developing countries, large positive effects on education, health, distributive and pro-female policies, the quality of governance, and economic development.
- In developed countries, empirical evidence is more mixed and does not point towards large efficiency gains.

Overall, increasing gender diversity matters for political outcomes – and more so in contexts with low female political representation.

Diversity and Economic Performance

Does diversity also matter for economic performance?

The potential costs of diversity are fairly evident and lead to behaviors/policies that are often counterproductive for society as a whole.

e.g., conflict of preferences, discrimination

But a diverse mix of people also brings about variety in abilities and perspectives.

e.g., different cultures and life experiences

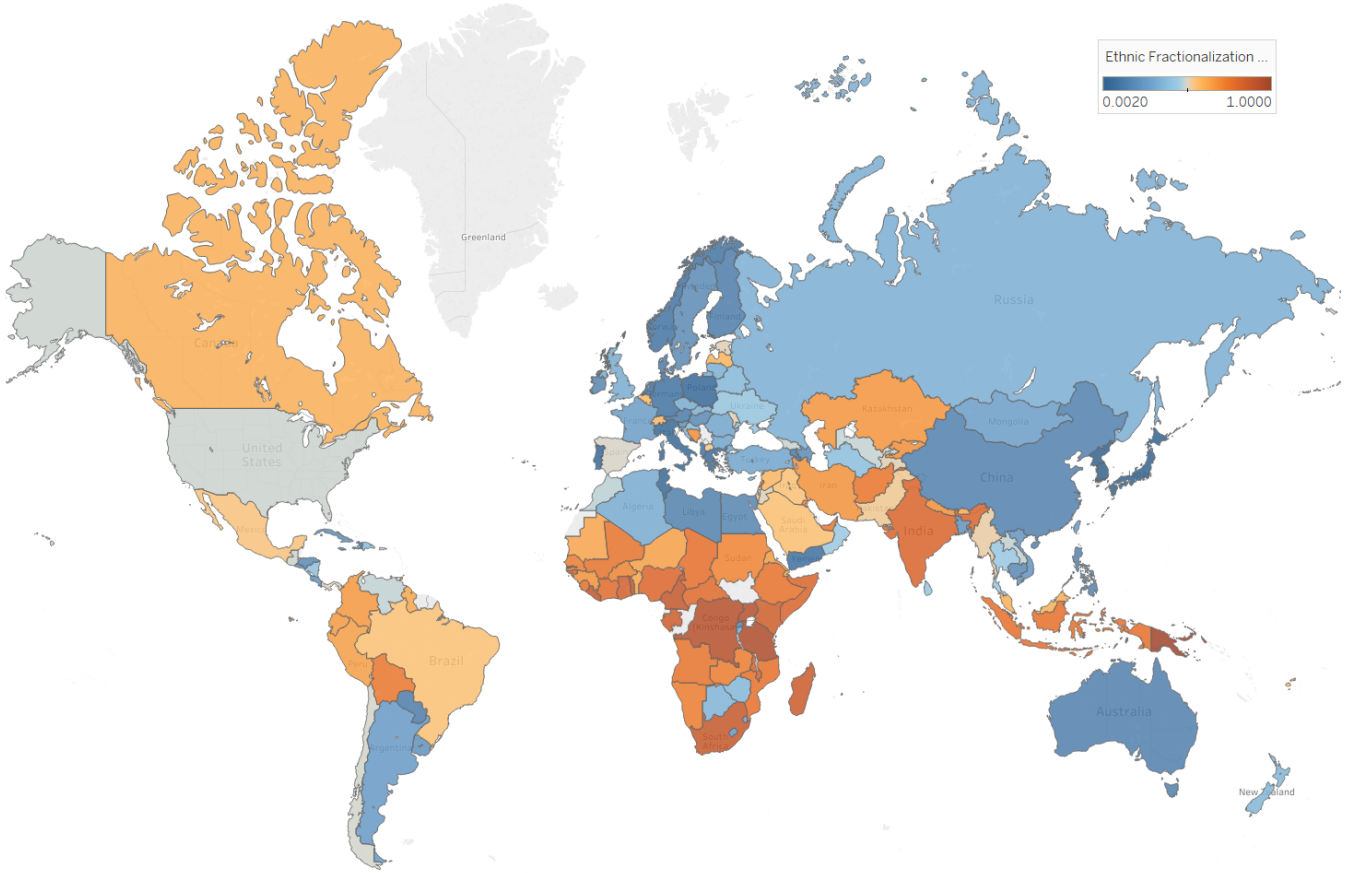
Suggests a trade-off between the benefits and costs of diversity at the country, firm, and team levels.

Our Roadmap

Overall, empirical evidence is mixed. We will study:

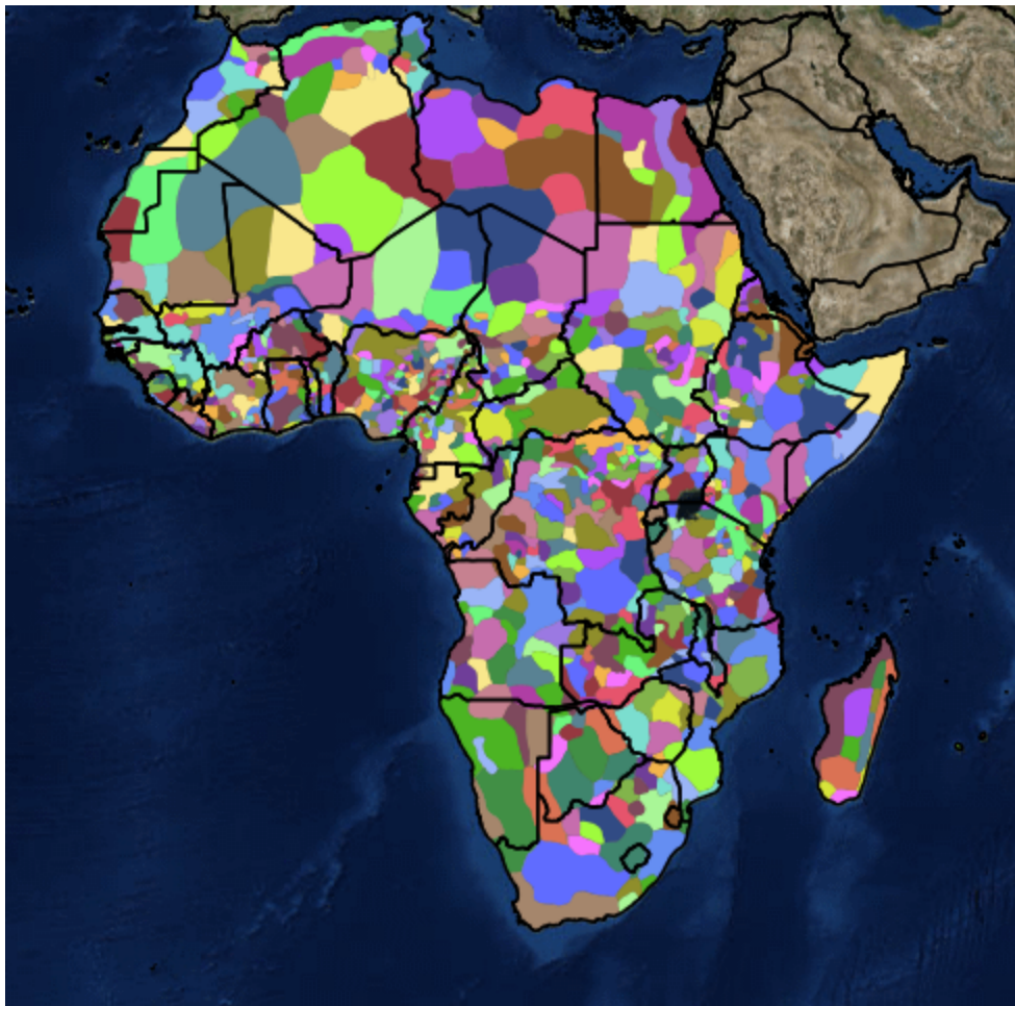
- **Diverse societies**
  - Correlational, country/county-level evidence
  - With a focus on how ethnic diversity relates to economic growth and to the provision of public goods
- **Diverse companies**
  - Instrumental variable's strategy
  - With a focus on recruiting women in a male-dominated sector
- **Diverse teams**
  - Field experiments in the US and Kenya
  - With a focus on entrepreneurial (i.e., high-skilled) and canvasser (i.e., low-skilled) teams

Worldmap of Countries on an Ethnic and Cultural Diversity Scale



Notes: There is considerable heterogeneity in ethnic fractionalization across countries.
Source: Wikipedia

Africa Based on an Ethnic and Cultural Diversity Scale



Notes: This observation is even more impressive at finer geographical scales.
Source: National Geographic

Ethnic Diversity and Economic Performance

This richness in diversity allows for macro-level comparisons between geographies.

Alesina and La Ferrara (2005) follow this approach and discuss the "goods and bads" of fragmented societies.

They highlight two main results:

- On average, increases in diversity are associated with lower economic growth.

  $\Rightarrow$ Diversity is "bad".

- However, when interacting diversity with income levels of communities, the interaction has a positive marginal effect.

  $\Rightarrow$ Diversity can be "good" – but for higher levels of development.

Ethnic Diversity's Negative Effects

Cross-country regressions suggest that, ceteris paribus, going from perfect homogeneity to maximum heterogeneity would reduce a country's growth rate by two percentage points per year (!).

Altruism also does not travel well across ethnic lines.

Ethnic fragmentation is:

- Negatively correlated with measures of infrastructure quality, literacy, and school attainment.
- Negatively correlated to the size of redistributive policies.
- Positively correlated with infant mortality.

Why do some countries benefit more from diversity?

Ethnic diversity has fewer negative effects in rich democracies.

e.g., the US is an economically successful melting pot

Some potential explanations:

- Productivity benefits of skill complementarities are realized only when the production process is sufficiently diversified – as in advanced economies.

  e.g., the best engineers are ..., but the best managers are ...

- Richer societies have developed institutional features that allow them to better cope with the conflict element intrinsic in diversity and isolate or moderate its negative effects.

  e.g., democratic institutions that limit discrimination

Quiz

What are the limitations of macro-level, cross-country comparisons?

Omitted Variable Bias (OVB)

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Quiz

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...

In what follows, we focus on “cleaner” empirical evidence that attempts to identify “causal” effects.

This comes at the cost of looking into more specific contexts.

$\Rightarrow$ Loss of generality

$\Rightarrow$ Potentially low external validity

We start with a study that analyzes gender diversity in top leadership positions in companies...

The Glass Ceiling in Venture Capital

The glass ceiling is a colloquial term for the social barrier preventing women from being promoted to top jobs in management.

Only 10% of new hires in the venture capital industry are women.

Approximately 75% of venture capital firms have never had a senior investment professional who is a woman.

Can increasing gender balance improve these firms' performance?

The Effects of Women in Top Leadership Positions

Calder-Wang and Gompers (2021) show that hiring female partners by global venture capital firms improves deal and fund performances.

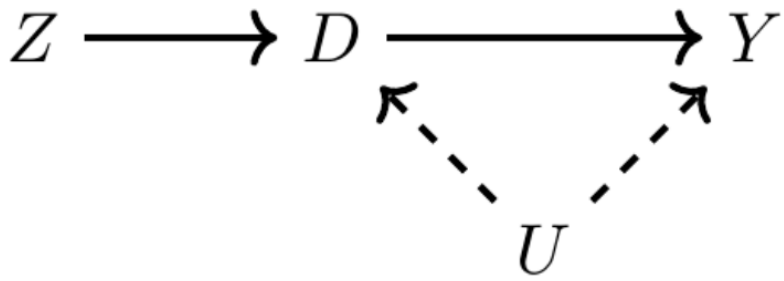
How do they get to this conclusion?

They rely on an instrumental variables strategy:

- Venture capital partners with more daughters have a stronger propensity to hire female partners.
- Having daughters/sons is pretty much random.

  $\Rightarrow$ Provides them with quasi-random variation in the probability of hiring female partners

The Research Design Explained



We care about the relationship between a treatment D (e.g., share of female employees) and an outcome Y (e.g., firm performance).

There are many confounder variables U (e.g., how toxic the firm's culture is) that affect D and Y.

An instrumental variable, Z (e.g., whether partners have daughters), predicts D but is uncorrelated with the confounders U.

$\Rightarrow$ Allows for the identification of the *causal* effect of D on Y

Quiz

Would looking at whether partners are married to someone from a different ethnic group allow us to identify the causal effect of ethnic diversity on venture capital funds' performance?

No!!!

This is likely predictive of partners' probability of hiring ethnically diverse partners.

BUT the decision to marry someone from a different ethnic group is correlated to many confounders (e.g., political affiliation) that may also affect funds' performance.

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Implementation in Practice

Let FHR_{it} denote the female hired ratio and FP_{it} the performance of firm i in a five-year window t.

Estimate sequentially two linear regressions:

- **First stage**

  $$\text{FHR}_{it} = \beta_1 \text{ \#Daughters}_{it} + \beta_2 \text{ \#Children}_{it} + \beta_3' \text{Controls}_{it} + \varepsilon_{it}$$

- **Second stage**

  $$\text{FP}_{it} = \theta_1 \text{ \#Predicted FHR}_{it} + \theta_2 \text{ \#Children}_{it} + \theta_3' \text{Controls}_{it} + u_{it}$$

Main Results

First stage: The relative effect of existing partners having one more daughter increases the ratio of female hires by an amount of 1.93%.

Given that, on average, firms have a female hired ratio of 8.03%, this is a substantial increase of 25%.

Second stage: A relative increase of one daughter on average leads to an increased probability of success by 2.88% (the overall success rate of 28.7%).

The relative effect of having a daughter over a son is a 3.2% increase in excess return for the fund (the average net IRR is 14.1% and the average excess return is 3.9% for the funds in the sample).

Do diverse teams get the job done?

We now go at an even finer-grained level and study team performance in two very different contexts:

- Teams of canvassers for NGOs in Kenya (Marx et al., 2021)

  $\Rightarrow$ Low-skilled workers in a developing country

- Teams of entrepreneurs at an MBA program in Harvard (Calder-Wang et al., 2021)

  $\Rightarrow$ High-skilled workers in a developed country

Diversity and Team Performance in a Kenya

Marx et al. (2021) study ethnic diversity in a non-profit organization during a large voter canvassing and registration exercise in 2012.

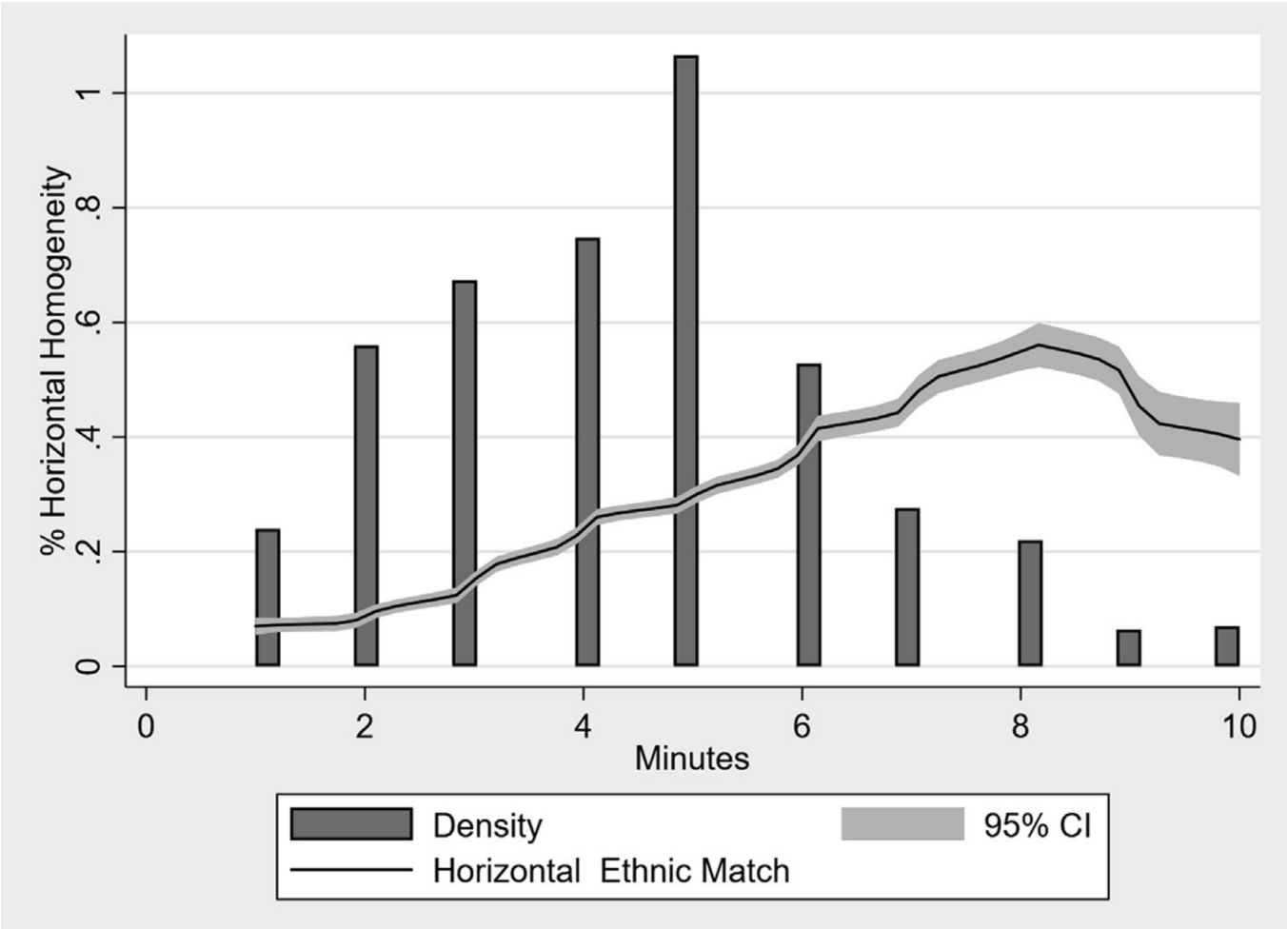
The field experiment randomly allocates the canvassers to teams of two and each team to a supervisor responsible for monitoring them in the field.

$\Rightarrow$ Generates random variation in both horizontal and vertical ethnic diversity

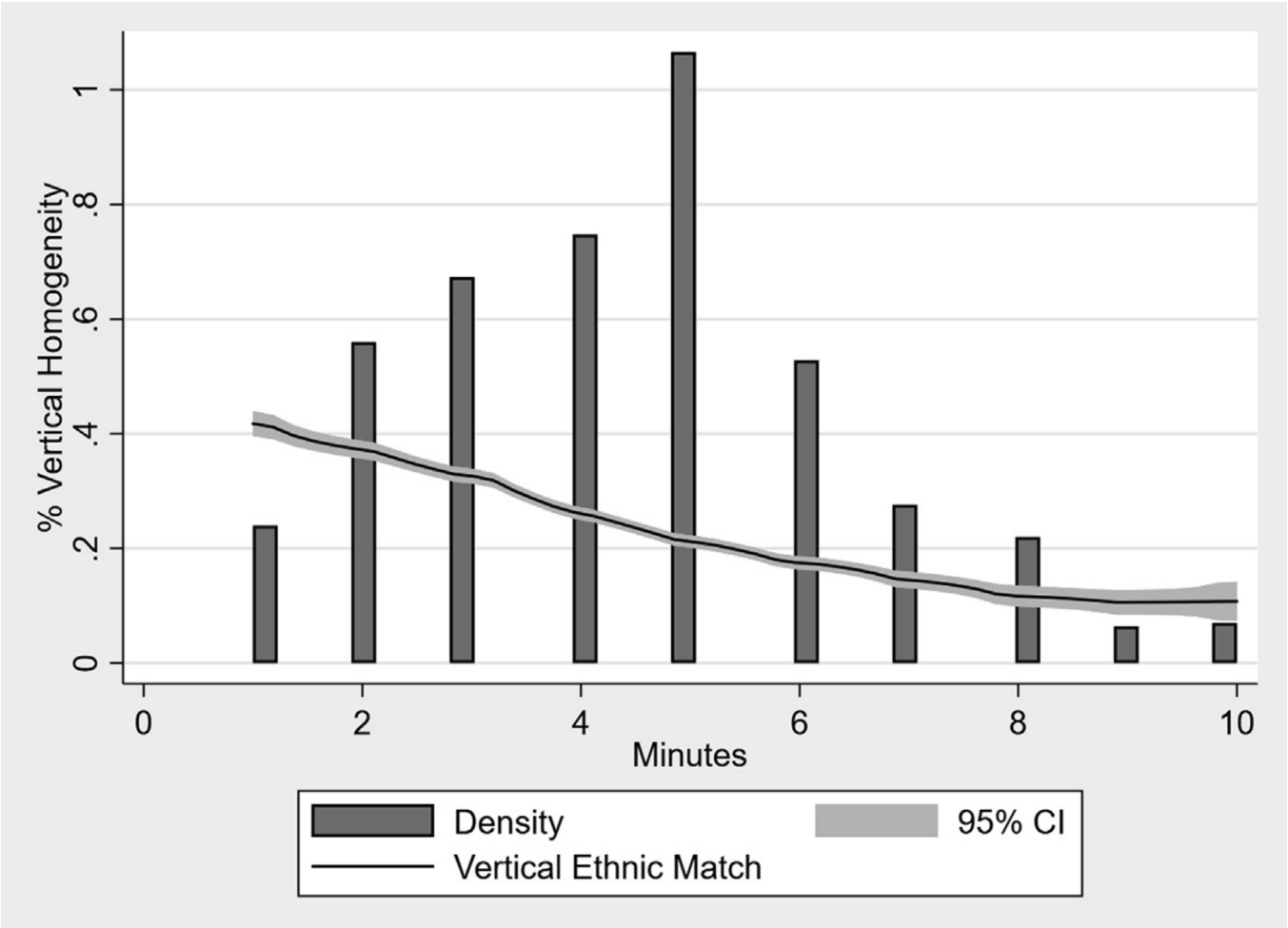
The main outcomes are canvassing success rates, canvassing times, time use, and registration rates among target households.

We focus here on visit duration (a low duration suggests low team effort).

Horizontal Homogeneity Increases Performance



Vertical Homogeneity Decreases Performance



Diversity and Performance in Entrepreneurial Teams

Women make up for less than 15% of start-up founders, even though over 40% of science and engineering master's degrees and MBA degrees are awarded to women.

Hispanics and Blacks make up for fewer than 5%

Calder-Wang et al. (2021) study the relationship between team diversity and performance in the context of a business course to build start-ups (among MBAs).

Why are entrepreneurial teams so homogenous? Does team diversity lead to better entrepreneurial outcomes? How would policy intervention, such as mandated gender and racial diversity, affect performance?

Research Design

The team-based course was taken by over 3,000 MBA students from the Classes of 2013 through 2016 at Harvard Business School (HBS).

2014–2016 cohorts could form teams freely.

For the 2013 cohort, a computer algorithm randomly assigned students conditional on their observed characteristics:

"Concretely, the algorithm was developed to ensure that the composition of each team created by the computer approximately reflected the overall composition of the entire section in terms of gender and whether a student was from the US or international."

In addition, faculty advisors and external judges were also randomly chosen.

Main Results

Endogenous Team Formation: Individuals are 25% more likely to form teams with people of the same race/ethnicity or gender relative to randomly matching.

School ties and shared work experience increase the probability of co-founding a start-up business by 17% and 11%, respectively.

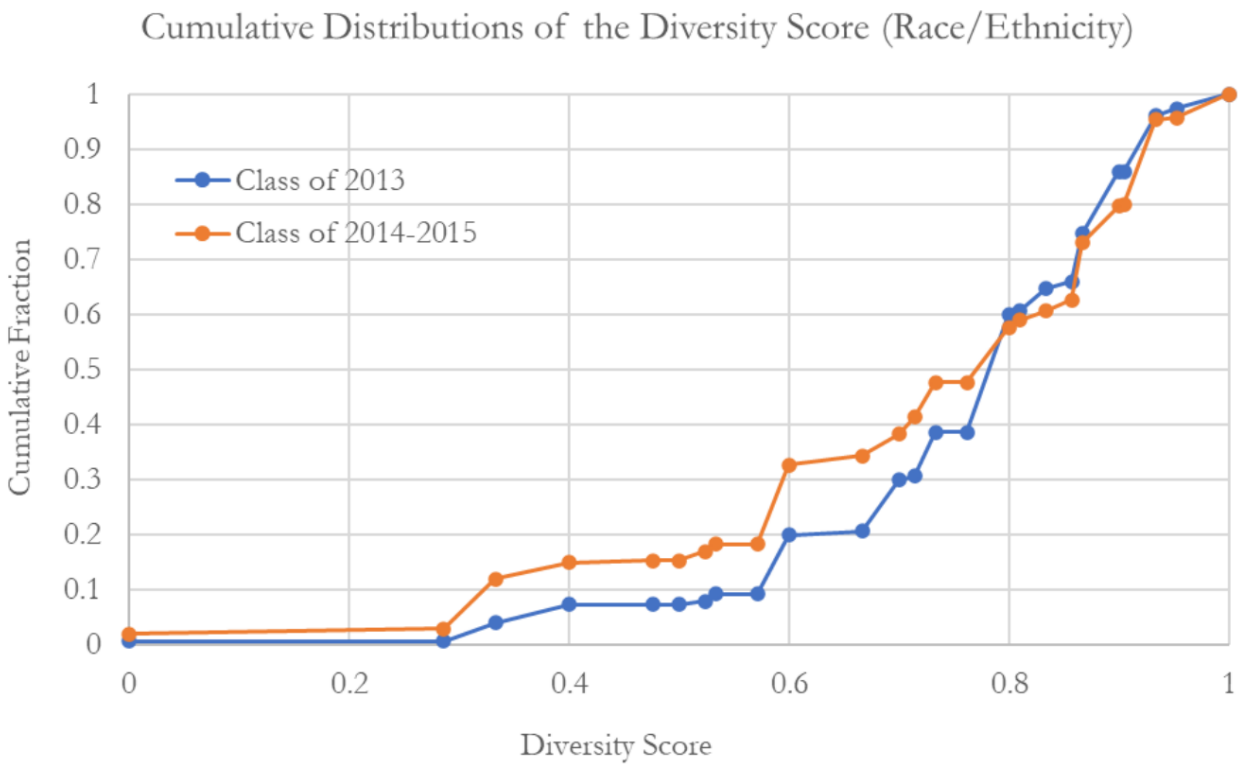
Horizontal Diversity: Racial/ethnic and gender diversity significantly decrease team performance – but less so when teams are formed voluntarily.

Vertical Diversity: Significant positive effects of female faculty advisors on female student teams, but no effects of female judges who serve as one-time evaluators.

No effect of male advisors and judges (no reaction to gender diversity).

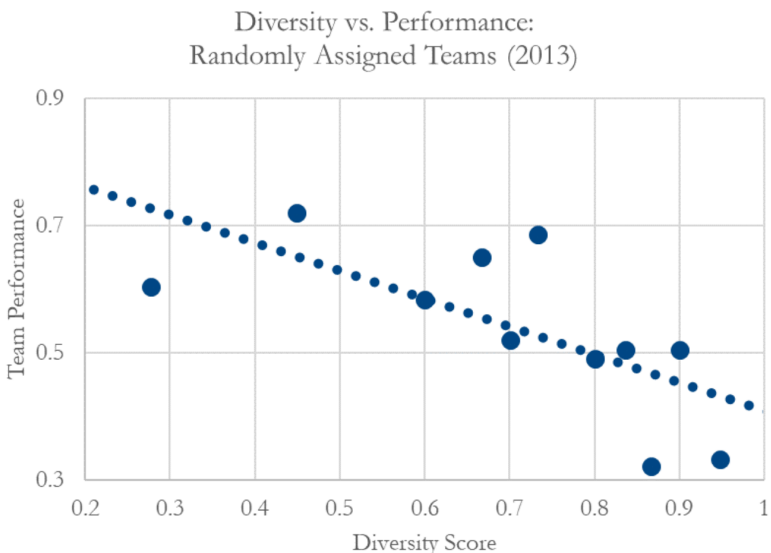
Voluntary Formation of Teams Leads to Less Diverse Teams

Panel B. The CDF of Race/Ethnicity Scores under Random Assignment vs. Voluntary Formation

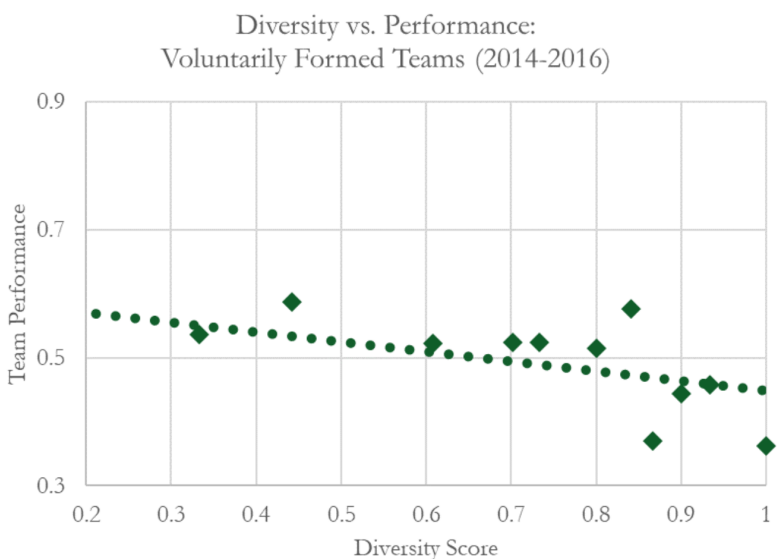


Team Performance Decreases Less for Voluntarily Diverse Teams

Panel A. Diversity vs. Performance with Random Team Assignment

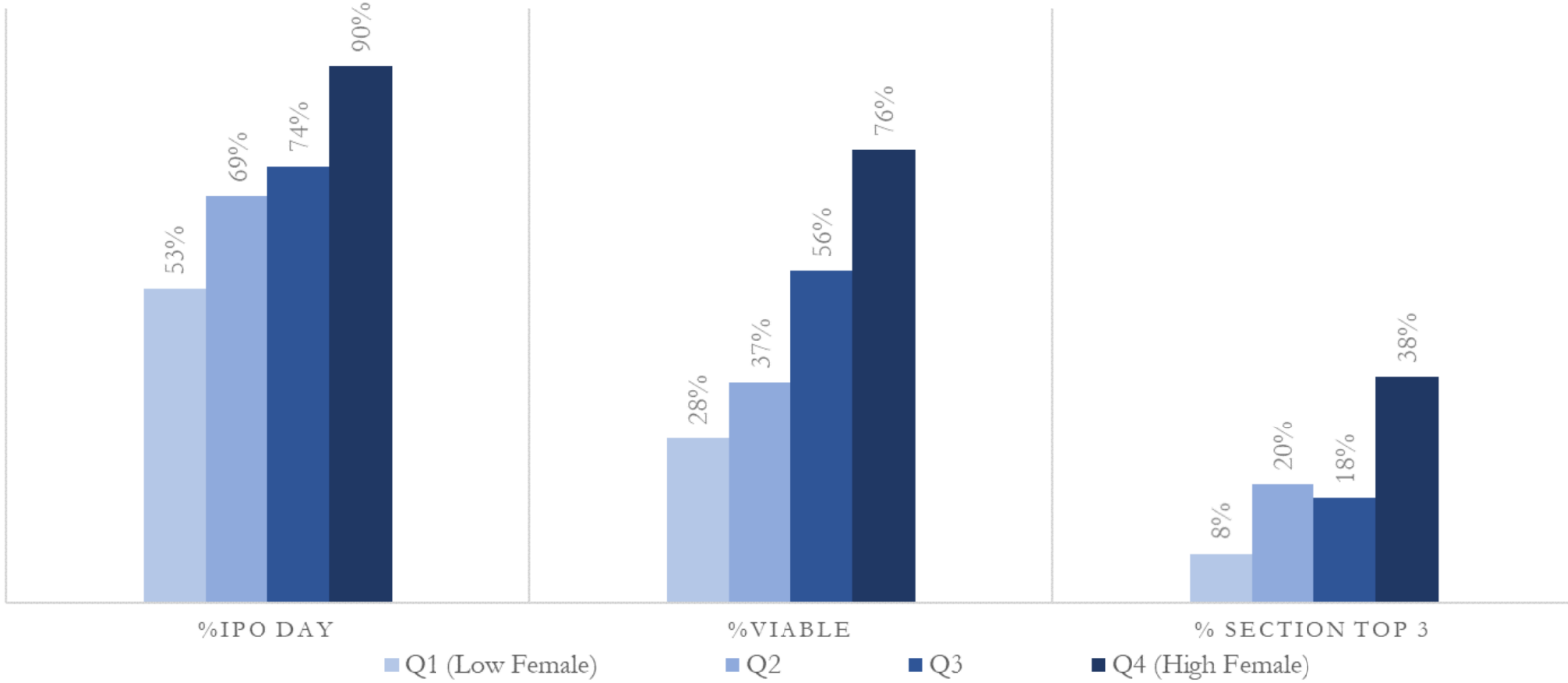


Panel B. Diversity vs. Performance with Voluntary Team Formation



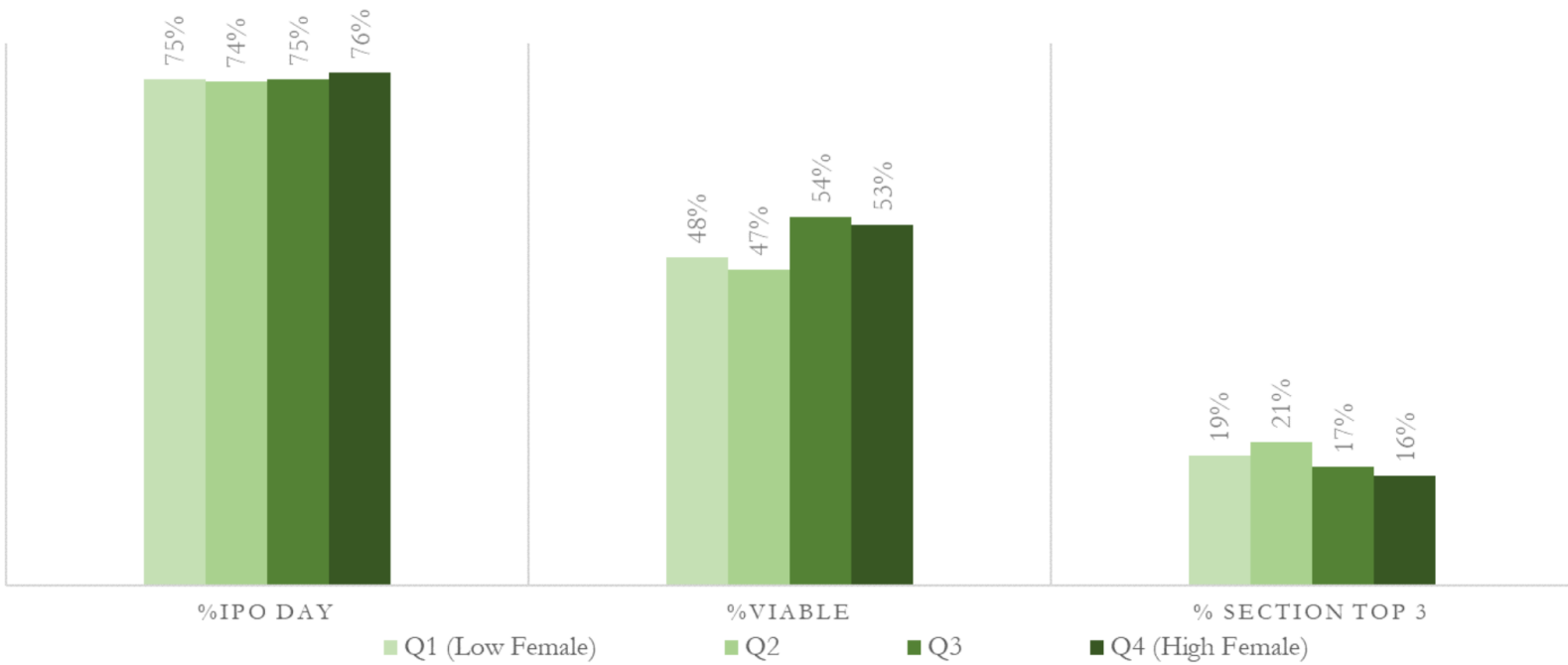
Women Advisors Positively Impact Women Teams

Panel A. Performance by % Female in a Team when Faculty Section Leaders are Women



No Detectable Effect for Male Advisors

Panel B. Performance by % Female in a Team when Faculty Section Leaders are Men



Concluding Remarks

We care about diversity out of fairness and efficiency concerns.

Overall, empirical evidence supporting increased efficiency is mixed.

Effect sizes and signs vary across dimensions (gender, ethnicity), countries (developing/developed countries), and scales (firms/teams).

Thus, if utilitarian arguments can “make the case” for diversity in some cases, they will often not suffice.

Alesina, A. and La Ferrara, E. (2005). Ethnic diversity and economic performance. *Journal of economic literature*, 43(3):762–800.

Calder-Wang, S. and Gompers, P. A. (2021). And the children shall lead: Gender diversity and performance in venture capital. *Journal of Financial Economics*, 142(1):1–22.

Calder-Wang, S., Gompers, P. A., and Huang, K. (2021). Diversity and performance in entrepreneurial teams. Technical report, National Bureau of Economic Research.

Marx, B., Pons, V., and Suri, T. (2021). Diversity and team performance in a kenyan organization. *Journal of Public Economics*, 197:104332.

Tips for the Exam

Understand the instrument variables (IV) empirical strategy.

Understand the concepts of horizontal and vertical diversity.