

# RESEARCH AND TEACHING

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Christoph Hedtrich  
Edinburgh University

Giulia Vattuone  
Stockholm University

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# MOTIVATION AND RESEARCH QUESTION

- Large earnings differences across graduates of different universities
- Selection or value added by university?
- Value added by initial skill of students: Does university value added differ between low and high skill high school graduates?
- Do universities selectivity and value added by initial skill covary?
  - ◊ Tracking logic: if only selective universities are able to provide value added for most able students, but non-selective universities are not → motivation to segregate university students by skill
  - ◊ only holds if lower skill students pose a negative externality on other students, which should be true due to congestion (decreasing returns to scale) even without direct peer effects
- Later: Which inputs matter for value added (by initial skill)?

# CONTRIBUTION

- Mountjoy and Hickman (2021)
  - ◊ Allow for heterogeneity in value added by pre-university skills of students. Lack of value added differences in baseline estimates might be hidden due to sorting+heterogeneity in treatment effects
  - ◊ Combine typical input measures with "research quality" of faculty
- Roca and Puga (2016)
  - ◊ Dynamic gains to universities - closely linked to locations due to granularity and location of universities

## METHOD/APPROACH

- start roughly like Mountjoy and Hickman (2021), review heterogeneity in value added

# DATA OVERVIEW

1. Earnings differences across universities (-Field)
  - ◊ Average earnings at age 30,35,40
  - ◊ Earnings difference between 40 and 30
  - ◊ Total Earnings 30-40 (cumulative)
  - ◊ Number of observations
2. Selection vs. Value Added
  - ◊ Student selection - high school grades (year 9?, 12)
3. "Value Added" Components:
  - 3.1 genuine increase in human capital
  - 3.2 exposure to better firms/labor market, including better sorting (Q is occupation distribution within a field more dispersed in small markets?)
4. "Value added" by high school grade (year 9?, 12) (simply bin)

## REFERENCES I

- Mountjoy, Jack, and Brent R Hickman.** 2021. “The returns to college (s): Relative value-added and match effects in higher education.” Technical report, National Bureau of Economic Research.
- Roca, Jorge De La, and Diego Puga.** 2016. “Learning by Working in Big Cities.” *The Review of Economic Studies* 84 (1): 106–142. [10.1093/restud/rdw031](https://doi.org/10.1093/restud/rdw031).

## TABLES AND FIGURES