

Jubilee

EconTEAching

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Working with student data: what to consider

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US
UNIVERSITY
OF SUSSEX

**BUSINESS
SCHOOL**

EFMD
EQUIS
ACCREDITED

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Content

My experience with data (applied macro)



Motivation for using (institutional) student data



Additional advantages of institutional data



What to consider

My experience with data



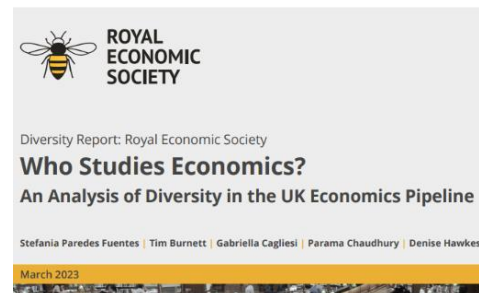
Secondary data: macro/financial time series (Bloomberg data); cross-section and household panel data (Understanding Society)



Primary data: survey and (Markit) data on non-professional traders



Education data:
HESA

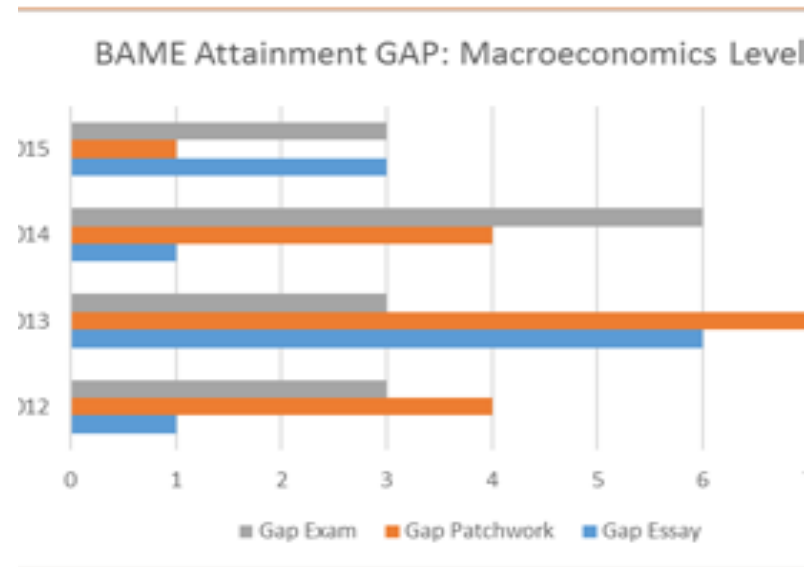


Education data:
Institutional data
(UoG and UoS)

Motivation for using (institutional) data



- PERSONAL INTEREST
(KNOWING YOUR
SURROUNDINGS)



- Module level: Persistent positive GAP average non BAME – Average BAME
-

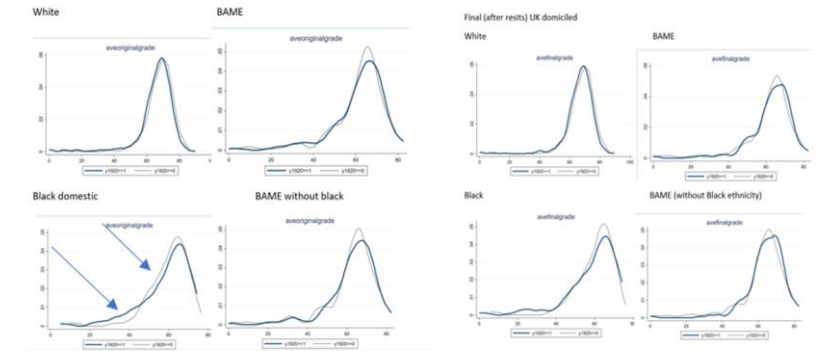


- DEVISE INFORMED
EVIDENCE -BASED
INTERVENTION (TEAM
BASED LEARNING)

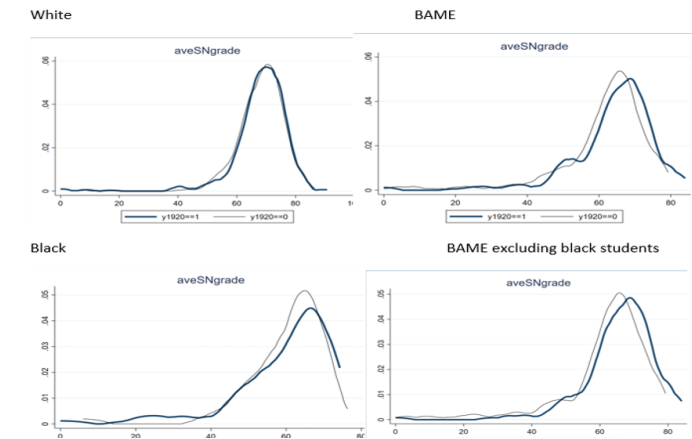
Motivation: Tailored picture tailored picture of the local context

- Institutional data provide a more accurate picture of the local context, student demographics, and academic programmes.
 - Distributional dimensions: identifying patterns, understanding shifts in student outcomes, and evaluating the impact of interventions or policy changes
- (my application: Covid- interventions - online assessments and Non-Detriment policy)

Diff-in Diffs UK domiciled: level 6 (average grades)
Final grades (averages) (Covid vs non-covid grades)
Domestic Level 6 Final grade before resit/EC



SAFETY NET: final grades UK domiciled



DIFFERENCE-IN-DIFFERENCES ESTIMATION RESULTS

Number of observations in the DIFF-IN-DIFF: 1479

	Before	After	
Control:	297	314	611
Treated:	425	443	868
	722	757	

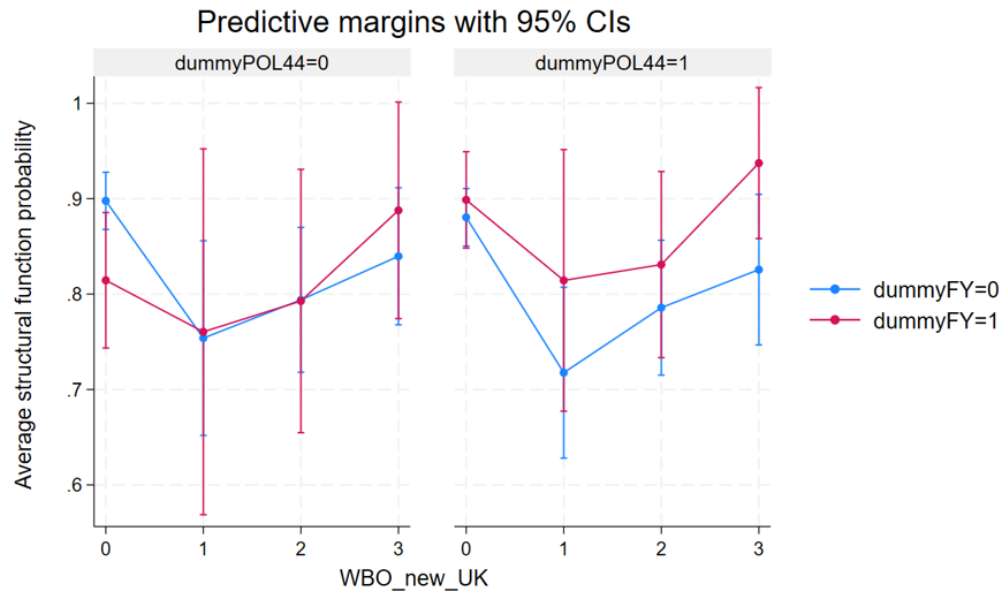
Outcome var.	aveSN-e	S. Err.	t	P> t
Before				
Control	66.427			
Treated	65.327			
Diff (T-C)	-1.100	0.782	-1.41	0.160
After				
Control	65.741			
Treated	68.917			
Diff (T-C)	3.177	0.788	4.03	0.000***
Diff-in-Diff	4.277	1.110	3.85	0.000***

Final grade after no-detr. policy

statistically significant: policy effects

R-square: 0.02
* Means and Standard Errors are estimated by linear regression
**Robust Std. Errors
Inference: * p<0.01; ** p<0.05; * p<0.1

Motivation: Comparing the comparable



- Aggregation of dissimilar students can lead to draw inaccurate conclusions.
- The limited size of the one group may impede meaningful comparisons of proportions between groups.
- Beyond cohort sizes, variations in group compositions concerning factors like socioeconomic status, ethnicity, prior academic achievement, and institutional variables can influence both student experiences and outcomes.
- Exploring the genuine impact of a treatment, requires careful consideration and adjustment for these variables.
- Statistical Matching approach can mitigate inherent selection bias when making group comparisons between a treated group and an untreated group.

(my application: Foundation Year courses)

Additional advantages of institutional data



In addition to its descriptive role, institutional data can help administrators, educators, and policymakers, to guide data-driven decision-making processes and design targeted interventions.



Institutional data serves as a foundation for research within the institution, empowering researchers to explore questions related to teaching and learning effectiveness, student outcomes, and institutional policies



Predictive analytics applied to this data can identify students at risk of academic challenges, enabling proactive interventions and support mechanisms to enhance student success.



Regular analysis of the data, coupled with rigorous evaluative methods, fosters a culture of continuous improvement. This allows institutions to assess the effectiveness of educational practices and make adjustments to enrich the overall learning experience.

What to consider

- While institutional data offers numerous benefits, it is crucial to emphasize the importance of:
 - Ethical considerations
 - Data privacy and security
 - Data anonymization
 - Difficulties in obtaining the data
 - Transparency (in collecting them)
 - Data quality
 - Data retention policies

Q&A

Thank you!