Awarding Gaps and Assessments

Gabriella Cagliesi, *Business School, University of Sussex*
Deyu Ming, *School of Management*, *University College London*
Susan Smith, *School of Management*, *University College London*
Valeria Terrones-Rodriguez, *Business School, University of Sussex*
Luigi Ventimiglia, *School of Economics and Finance, Queen Mary University of London,*

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Queen Mary University of London

UNIVERSITY OF SUSSEX

UCL SCHOOL OF MANAGEMENT

Project: Investigating links between assessments and ethnic attainment gaps

Aims: To explore whether, and in what ways, assessment practices influence ethnic attainment gaps, and how students experience these practices.

Context: Across "comparable" courses at three English universities (Sussex, QMUL, and UCL), each with distinct student demographics and institutional contexts.

We seek to:

Track change: Analyse how awarding gaps shifted pre-, during, and post-COVID.

Diagnose design: Identify which formats (e.g., exams, group work, essays, etc.) narrow or widen ethnic disparities.

Compare contexts: Contrast patterns across Economics-only, wider Business School, and joint-degree cohorts to uncover discipline effects

Amplify voices: Explore students' lived experiences—fairness, clarity, confidence, stress, and assessment choices.

Inform practice and policy: Combine data and insight to offer evidence-based recommendations for fairer assessment design and more inclusive learning environment

Research Design and Methods

Quantitative Analysis

- Based on institutional module-level attainment data
- Focus on changes in ethnic awarding gaps across periods:
  - Pre-COVID
  - COVID
  - Post-COVID
- Uses mixed-effects regression models to account for variation across modules and student cohorts

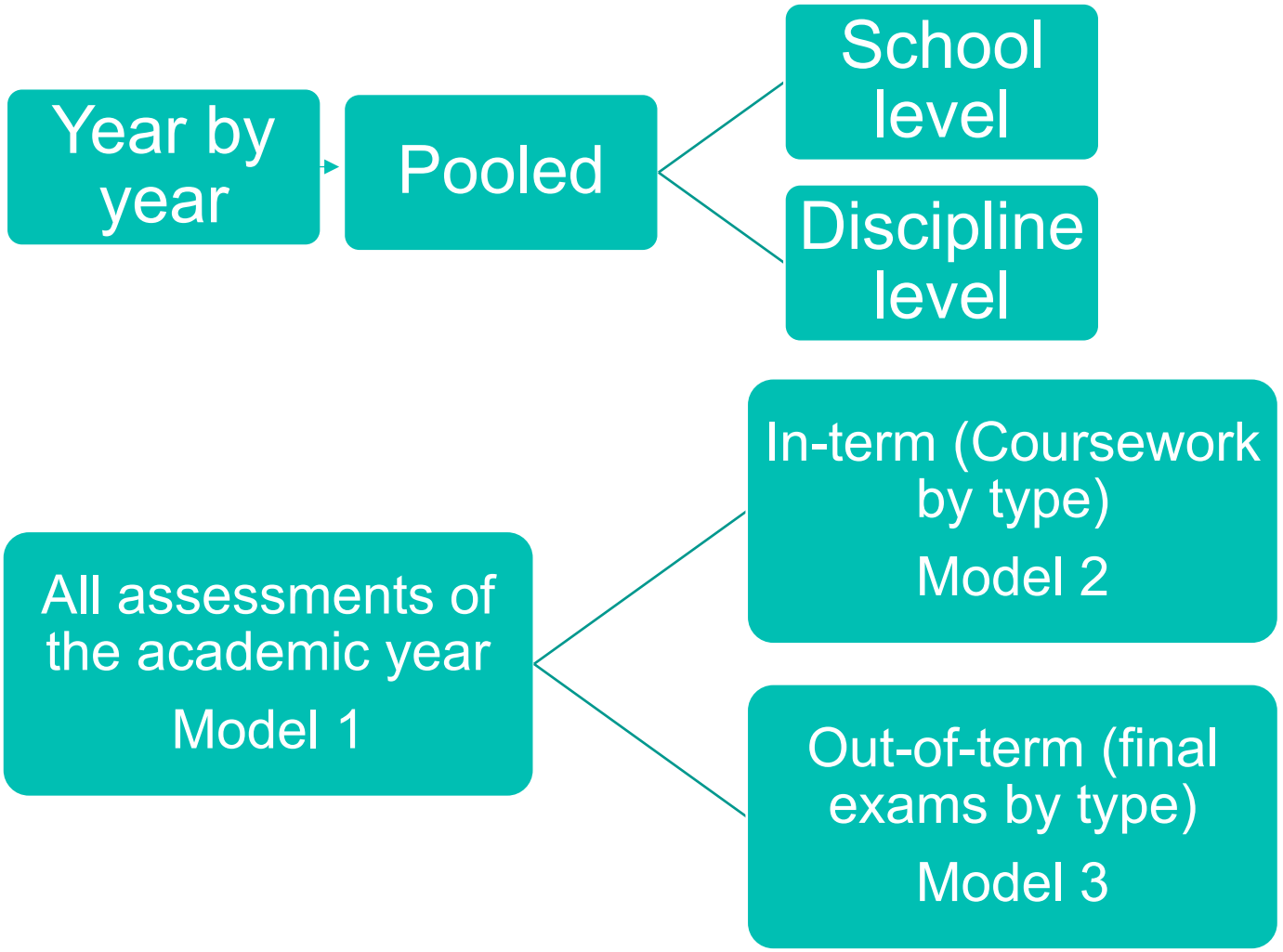
Qualitative Research (Focus Groups)

- Conducted post-COVID with students from Levels 3–6
- Explores lived experiences of assessment practices
- Topics include:
  - Fairness, stress, clarity, confidence
  - Module choice, group work, assessment types

Data: Quantitative Analysis

Only UK students	QMUL	UoS
Programmes	Selected Programmes (Econ, Econ and Finance, Econ , Finance and Management)	Selected programmes (Finance, Economics and Management) of the 3 Departments of the Business School
Entry requirements	AAA with A in Maths	ABB (pre-COVID) BBB (2020-21, 2022-23) Not A-level Maths
Time periods	2018-19, 2020-21, 2022-23	2018-19, 2020-21, 2022-23
Assessment changes	Traditional → Online → Traditional	Traditional → Online → Online & traditional
Ethnic composition	Asian 65%, White 16%, Black 10%, Mixed 4;% Other 5%(*)	Asian 14%, White 67%, Black 8%, Mixed 8%, Other 3%(**)
Sample Size	**17,941** observations (736 students of whom 211 overlapped across periods)	**46,276** observations (2111 students of whom 775 overlapped across periods)

Modelling Strategy: UoS and QMUL



Variables Included in Regression Models: UoS and QMUL

Category	Variables
Outcome Variable	Grade on assessment
Student Demographics	Gender Ethnicity Socioeconomic background (FSM or Parental Occupation) Disability status (disaggregated index or as binary indicator) Placement year enrolment
Assessment Context	Time period (Pre-, During-, Post-COVID) Assessment timing (in term vs. final for Model 1) Assessment type (Model 2 and Model 3) Term of delivery (Term 1 or Term 2) (QMUL only)
Module Characteristics	Quantitative module (binary indicator) Module level (4, 5, or 6) Core vs. optional module (QMUL only)
Discipline	Departments (UoS: Accounting and Finance; Management; Economics) Degrees (QMUL: Single degree ; joint degrees)

Quantitative Analysis

$$M_{iay} = \beta'_1 SC_{iy} + \beta'_2 MC_{ay} + \beta'_3 AC_{ay} + \beta'_4 IT_{iay} + u_i + \varepsilon_{iay}$$

Component	Description	Examples
M_{iay}	Mark of student *i* on assessment *a* in year *y*	Grade (0-100)
SC_{iy}	Student characteristics	Ethnicity, Gender, SES, Disability
MC_{ay}	Module characteristics	Level, Quantitative, Core/optional
AC_{ay}	Assessment characteristics	In-term vs final, Assessment type
IT_{iay}	Interaction terms	Ethnicity × Module/Assessment features
u_i	Random effects	Intercepts + Slopes (student heterogeneity)
ε_{iay}	Residual error	Unexplained variation

Quantitative Analysis

Two points to clarify:
1) IT_{iay}: relevant interaction terms (e.g. ethnicity × time period ; assessment type; quant); these terms allow to test research questions

Research Questions:

- Do ethnic achievement gaps vary by assessment types and module (quantitatitve for QMUL) characteristics?
- Did COVID change ethnic achievement gaps?
- Gender and SES (for Uos Discipline Economics)

2) Random effects u_i (random intercept to control for confounding factors, ensuring unbiased ethnic gap estimates through like-with-like comparisons; random slopes to account for student heterogeneity)

- Each student has their own "starting point“ (motivation, ability, etc..)
- Each student reacts to context differently (time period and module level, quant and high stake for UoS, core for QMUL)

UoS

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Model 1

BAME	Pre-COVID	COVID	Post-COVID	Total
White	72%	66%	66%	68%
Black	8%	7%	8%	8%
Asian	11%	16%	15%	14%
Mixed-heritage	8%	9%	8%	8%
Other ethnic group	2%	3%	4%	3%
Total	617 (100%)	662 (100%)	832 (100%)	2,111 (100%)
Average number of assessments per student	15	17	16	16
Coursework (In-Term) Final Exam (<100%) Final exam 100% weight	50% 42% 8%	57% 38% 5%	61% 36% 3%	57% 38% 5%
(*) Given the small sample sizes for "Mixed and Other" ethnic minority students, statistical comparisons involving these groups should be interpreted with caution due to limited statistical power.				

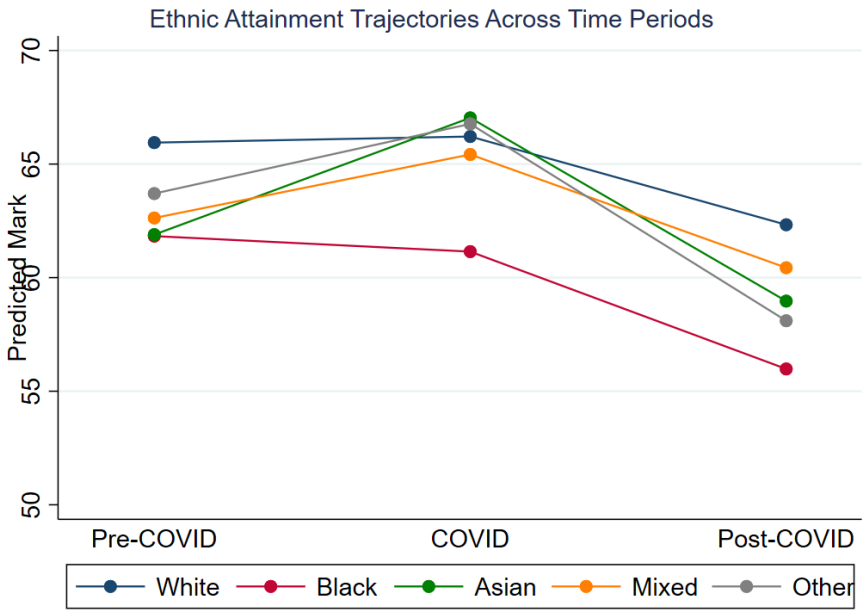
3 Departments

BAME	Pre-COVID	COVID	Post-COVID	Total
White	69%	64%	65%	66%
Black	11%	9%	8%	9%
Asian	10%	15%	13%	12%
Mixed-heritage	8%	10%	10%	9%
Other ethnic group	2%	3%	4%	3%
Total	100% (228)	100% (220)	100% (207)	100% (655)
Average number of assessments per student	16	18	16	16
Coursework (In-Term) Final Exam (<100%) Final exam 100% weight	50% 40% 10%	57% 37% 6%	54% 39% 7%	53% 39% 8%
(*) Give the small sample sizes for "Mixed and Other" ethnic minority students, statistical comparisons involving these groups should be interpreted with caution due to limited statistical power.				

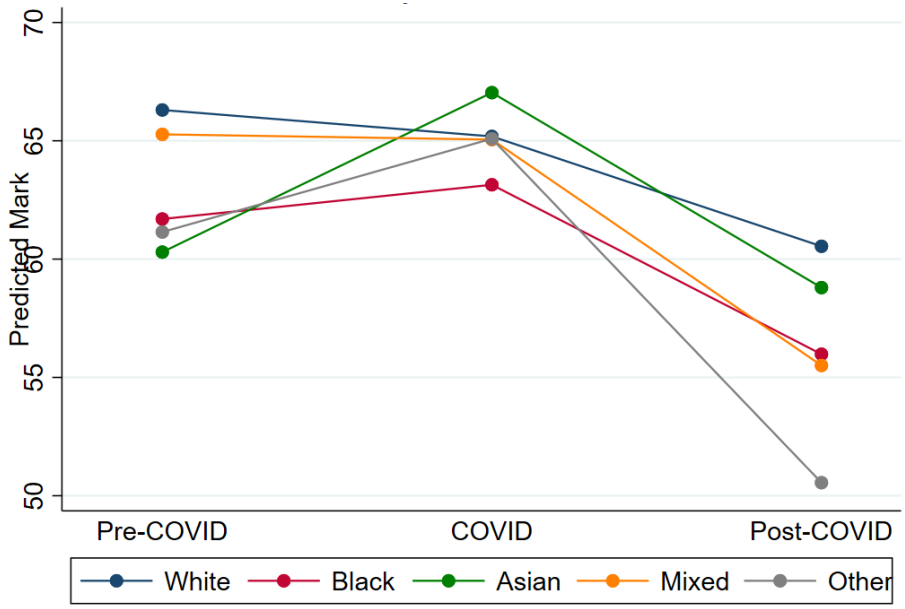
Economics (BSc and BA)

Results UoS: Model 1

3 Departments



Economics (BSc an BA)



Predicted margins - model estimates adjusted for compositional differences accounting for differences in student characteristics and institutional factors

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Results Model 1

3 Departments

Awarding Gaps	Pre-COVID 2018.19	COVID 2020.21	Post-COVID 2022.23	COVID vs. Pre-COVID	Post-COVID vs. Pre-COVID
White vs Black	**4.118*** **	**5.067*** **	**6.349*** **	0.949	2.231
White vs Asian	**4.052*** **	-0.822	**3.361*** **	**-4.874*** **	-0.691
White vs Mixed	**3.319*** **	0.790	**1.893***	**-2.529** **	-1.472
White vs Other	2.244	-0.555	**4.226** **	-2.800	1.982
	Gaps for all main ethnic groups	No gaps except Black	Emergence of gaps for all groups	Asian and Mixed-Heritage benefitted the most	No change between Pre and Post Covid gaps

Note: *** p<0.01, ** p<0.05, * p<0.10.

Economics (BSc an BA)

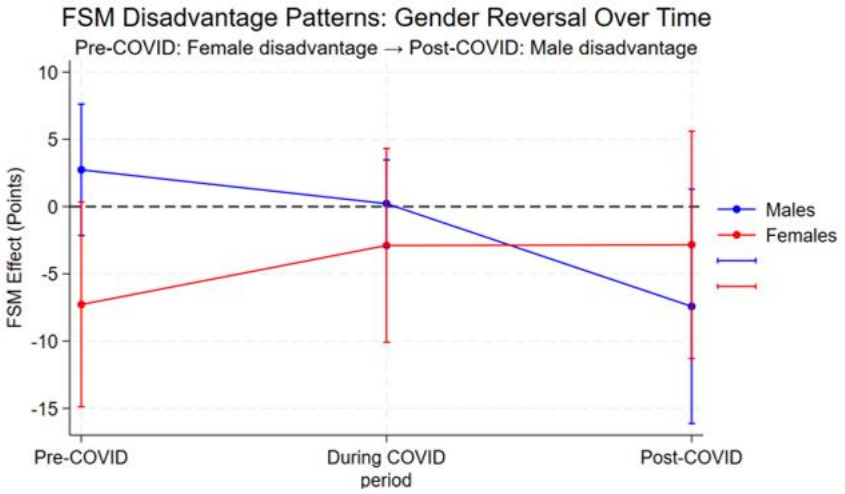
	Pre-Covid Gap	Covid Gap	Post Covid Gap	**COVID Achievement**	**Post-COVID Status**
White vs Black	**4.609** **	2.040 (ns)	**4.561***	**Gap Reduced**	**Gap Persists**
White vs Asian	**6.007*** **	-1.851(ns)	1.747(ns)	**Gap Eliminated**	**No Gap**
White vs Mixed	1.031	0.133 (ns)	**5.039***	No Baseline Gap	**New Gap Emerged**

Note: *** p<0.01, ** p<0.05, * p<0.10. Gaps calculated as White mean minus other ethnicities; positive values indicate White advantage. GAP: time-period shows absolute gaps at each time point (positive = White advantage)

Model 1 Gender and SES (only Economics)

Time Period	Gender Gap Non-FSM	Gender Gap FSM	FSM Effects on Males	FSM Effects on Female
Pre-COVID	**4.22***** (p=0.001)	-5.970(ns) (p=193)	+2.730 (ns) (p=0.273)	**-7.280*** (p=0.061)
COVID	1.780(ns) (p=0.299)	-1.330(ns) (p=719)	0.220(ns) (p=0.893)	-2.890(ns) (p=432)
Post-COVID	**4.00**** (p=0.034)	8.580(ns) (p=0.146)	**-7.420*** (p=0.095)	-2.84(ns) (0.509)

Note ***p<0.01, ** p< 0.05; * p<0.10, (ns)= not statistically significative
FSM Positive = FSM students outperform non-FSM, using dydx (marginal effects)
FSM negative = FSM disadvantage; using dydx (marginal effect)
Gender gap: Positive = Female advantage; negative = Male advantage (using predicted performance via margins).



Model 2

Assessment Category	Description
Short Timed Assessments	Assessments completed within a limited time (1 or 2 hours. This category includes in class or out of class written tests (TST) (paper-based or online; computer-based examination (CEX) tests; multiple choice question (MCQ) tests.
Essays	Extended written responses, usually requiring structured argumentation based on existing literature. This category includes standard essays (ESS).
Written Reports	Structured written work based on analysis, research or reflection. This category includes reports (REP), project work (PRJ), and portfolios (POF).
Technical Tasks	Assignments focused on solving defined problems or producing technical outputs. This category includes problem sets (PRB); media (MED), software exercises (SOE).
Interactive and Engagement-Based Tasks	Activities involving verbal or group-based interaction and communication skills. This category includes presentations (GPN), oral exams (ORL), and collaborative group work (GWS).

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Model 2 (Coursework)

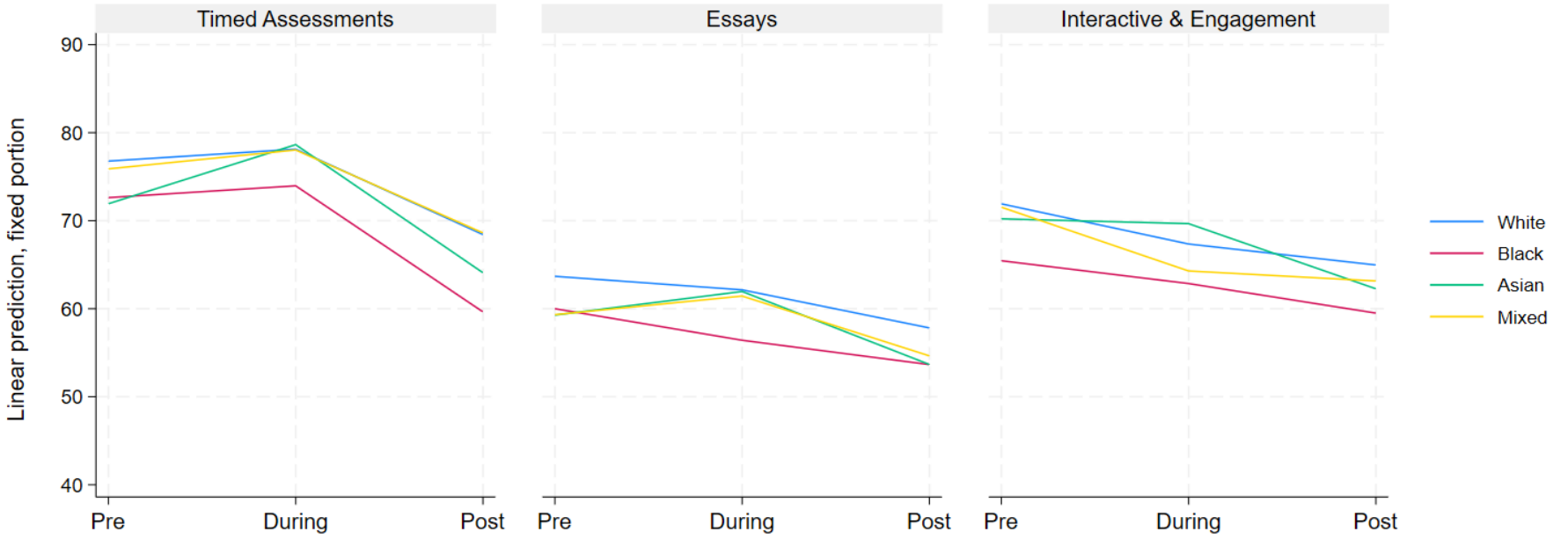
3 Departments

	Pre-COVID	COVID	Post-COVID	Total
In -Term Assessments (sub sample)	5,966	9,690	10,545	26,201
Short Time Assessments	25%	28%	37%	31%
Essay	28%	20%	20%	22%
Written Reports	14%	19%	19%	18%
Technical Tasks	9%	9%	5%	7%
Interactive and Engagement Task	25%	24%	19%	22%

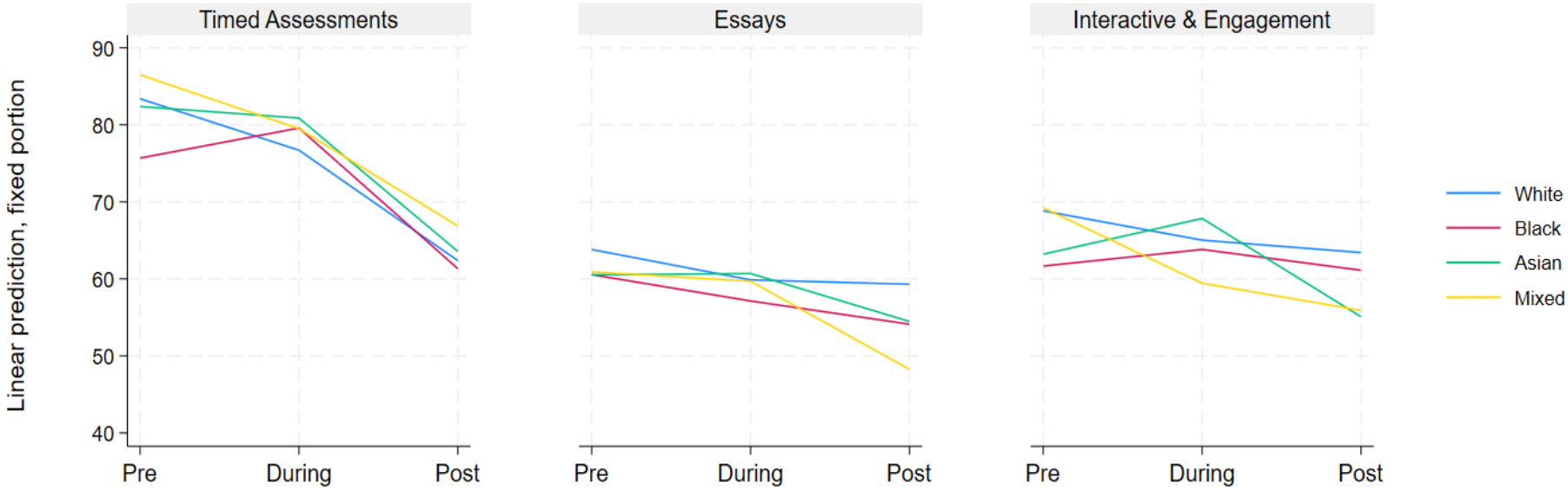
Economics (BSc an BA)

In -Term Assessments (sub sample)	2,321	3,387	2,413	8,121
Short Time Assessments	25%	31%	41%	32%
Essay	29%	20%	27%	25%
Written Reports	6%	10%	12%	10%
Technical Tasks	15%	10%	7%	10%
Interactive and Engagement Task	25%	29%	13%	23%

3 Departments



Economics (BSc an BA)



Results: Model 2

3 Departments:

Ethnicity comparison	Short Timed Assessments	Essays	Written Reports	Technical Tasks	Interact. and engagement Task
White vs Black	**8.783*** **	**4.161** **	**5.859*** **	2.430	**5.463** **
White vs Asian	**4.336*** **	**4.154*** **	**2.415** *	-0.816	2.702
White vs Mixed	-0.189	**3.171** **	**3.561** *	3.745	1.816
Result	Gaps: Black and Asian groups	All groups (except "Other"	**Gaps: all ethnic groups**	No gaps	Gap : only black students

Note: * p<0.10, ** p<0.05, *** p<0.01

Economics (BSc an BA):

Awarding gaps	Short-timed	Essay	Written Reports	Technical Tasks	Inter. Eng. Tasks
White vs Black	+1.051	+5.186	**+12.442 ** **	+0.243	+2.288
White vs Asian	-1.194	+4.829	+1.342	+3.101	+8.328
White vs Mixed	-4.498	**+11.052 ** **	**+13.568** *	+9.644	+7.503

Note: *** p<0.01, ** p<0.05, * p<0.10. Columns show ethnic attainment gap in the post-COVID period for each type of coursework assessment.

Model 3

Final Exams	Legend
Timed Unseen Exam	Traditional exams (UEX)
Timed Non -UEX Exam	Including: Open Text Exams (OEX), Seen Exam (EXS), Test (TST) and Computer Based Exam (CEX) and Multiple-Choice Question (MCQ)
Untimed Exam	Including: Essay (ESS), Project (PRG) and Take Away Paper (TAP)

	Pre-COVID	COVID	Post-COVID	Total
Final Exams (sub sample) (**)	5,847	7,305	6,805	19,957
UEX Traditional	71%	-	10%	
(Digital) Timed	9%	32%	35%	
(Digital) Untimed	20%	68%	55%	

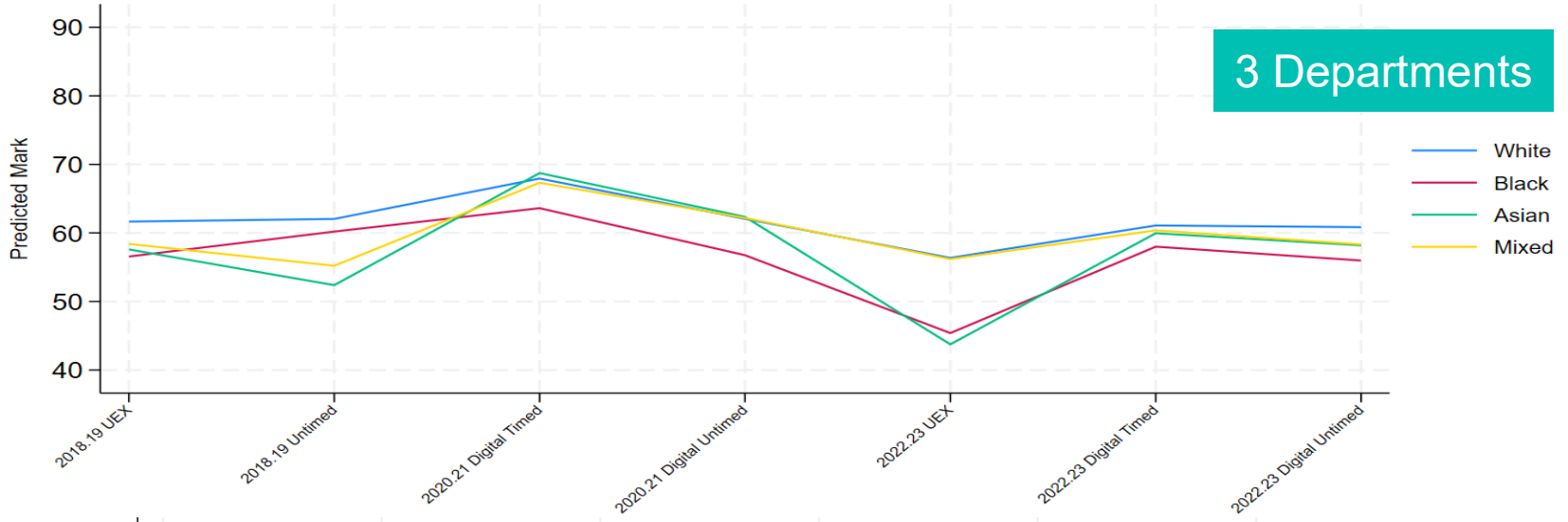
3 Departments

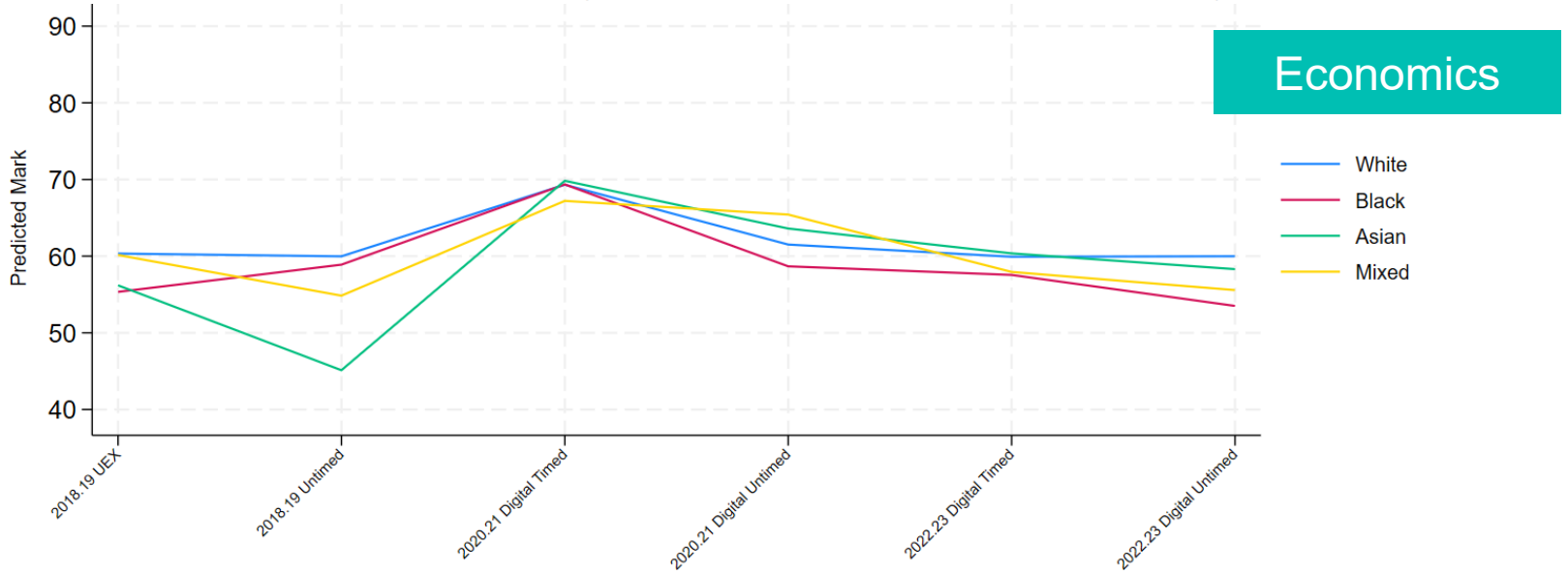
. (**)Technical Reports and Group Work were excluded from the sample used in the regressions because they accounted for only a small % of the

Final Exams (sub sample) (**)	2,312	2,594	2,050	6,956
UEX Traditional	79%	-	-	
(Digital) Timed	5%	34%	50%	
(Digital) Untimed	16%	66%	50%	

Economics (BSc an BA)

Results: Model 3





Ethnic Group	2018-19 UEX	2018-19 Timed exams	2018-19 Untimed exams	2020-21 Timed exams (digital)	2020-21 Untimed exams (digital)	2022-23 Timed exams (digital)	2022-23 Untimed exams (digital)	2022.23 UEX
White vs. Black	**5.098*** **	1.209	1.849	**4.324** **	**5.31*** **	3.091	**4.871*** **	**10.91*** **
White vs. Asian	**4.066** **	-1.269	**9.663*** **	-0.791	-0.282	1.131	**2.655** **	**12.61*** **
White vs. Mixed	**3.257** **	-0.579	**6.838** **	0.614	-0.134	0.713	**2.523** **	0.175
White vs. Other	3.951	-4.515	13.871	-1.512	-0.473	2.743	**3.615***	3.839
Result: Gaps group	Gaps (except Other)	No gaps	Asian and Mixed Gaps	**No gaps except Black students**		No gaps	**All gaps!**	Gaps Black and Asian
Note: * p<0.10, ** p<0.05, *** p<0.01.								

Ethnic Group	2018-19 UEX	2018-19 Timed exams	2018-19 Untimed exams	2020-21 Timed exams (digital)	2020-21 Untimed exams(digital)	2022-23 Timed exams (digital)	2022-23 Untimed exams(digital)
White vs. Black	**5.000** **	3.959	1.084	-0.035	2.836	2.369	**6.479** **
White vs. Asian	4.147	5.437	**14.858*** **	-0.508	-2.094	-0.443	1.687
White vs. Mixed	0.192	**-9.220*** **	5.136	2.113	**-3.916** **	1.947	4.411
White vs. Other	7.874	3.307	17.702	2.786	0.031	**13.621** **	**10.273*** **
Result: Gaps group	Black Disadvan.	Mixed Advant.	Asian Disadvan.	**No gaps**	Mixed Advant.	Other Disadvan.	Black and Other Disadv.
Note: *** p<0.01, ** p<0.05, * p<0.10							

Other Factors:

The FSM disadvantage disappears post-COVID across the full Business School sample, and no gender intersectionality is at play.

FSM EFFECT IN EACH PERIOD	Model 1 (Overall)		Model 2 (Coursework)		Model 3 (Final Exams)	
	Coeff.	p-value	Coeff.	p-value	Coeff.	p-vale
Pre-COVID (2018.19)	**-5.753*** **	0.003	**-4.023** **	0.026	**-7.721*** **	0.001
COVID (2020.21)	-0.607	0.604	-1.480	0.226	-0.636	0.576
Post-COVID (2022.22)	-1.136	0.427	-1.553	0.281	-1.902	0.227

Note: * p<0.10, ** p<0.05, *** p<0.01; Negative coefficients indicate FSM disadvantage (FSM students scored lower than non-FSM peers).

Variables	Effects	
	All Departments	Economics
Out of term (Final exams) vs Coursework	(-)	(-)
Out of Term (High stake FE) vs Coursework	(-)	(-)
Quantitative Module vs non Quant.	+/(-)	(-)
Progression Level 5 vs Level 4	(-)	(-)
Progression Level 6 vs Level 4	+	+
Placement vs non-Placement	+	+
FSM vs non-FSM (Pre-COVID)	(-)	(-)
Female vs Male	+	+
Disability: Mental Health	(-)	(-)

Conclusions UoS (3 Departments)

Ethnic attainment gaps are persistent but vary with time period, assessment format, and task type. Three main conclusions:

Pre-COVID gaps were substantial

– Most ethnic groups faced significant disadvantages in final exams and coursework.

– Essays and untimed assessments showed the largest early gaps.

COVID-19 reduced but did not remove inequalities

– Digital assessment narrowed gaps, but less than in Economics.

– Black students remained consistently disadvantaged across most formats, including digital ones.

Post-COVID gaps reappeared across all groups

– Renewed disadvantages emerged in nearly all assessment types.

– Written reports, short-timed coursework, and untimed exams showed the largest gaps.

– Digital timed exams continued to show no significant differences

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Conclusions UoS (Economics)

Ethnic attainment gaps shift with assessment design and wider structural conditions. Three main conclusions:

COVID-19 narrowed gaps

– Attainment gaps reduced or disappeared during COVID, especially in digital timed exams.

– Structured, time-limited tasks lowered barriers for several groups.

Gaps re-emerged post-COVID

– Once assessment returned to standard formats, disparities widened again.

– Black students faced renewed penalties in written reports and untimed digital exams.

– Asian students no longer showed the pre-COVID disadvantages seen earlier.

Post-COVID marks declined for all groups

– Performance dropped across ethnic groups.

– High-stakes final exams were most challenging, while coursework remained more stable.

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Limitations (UoS)

- FSM patterns are difficult to interpret confidently. Even though FSM disadvantage disappears post-COVID, we cannot isolate whether this is due to assessment flexibility, cohort characteristics, policy shifts, or support structures
- Some assessment formats have small subgroup samples, especially UEX exams or “Other” ethnic groups, limiting statistical power.
- Economics is part of the School dataset, so comparisons between “Economics” and “Business School” are conservative; excluding Economics would likely amplify differences
- Integrity concerns in digital timed assessments remain unresolved. The consistent absence of awarding gaps in timed digital exams could reflect both genuine equity gains and potential masking effects from un-proctored conditions.

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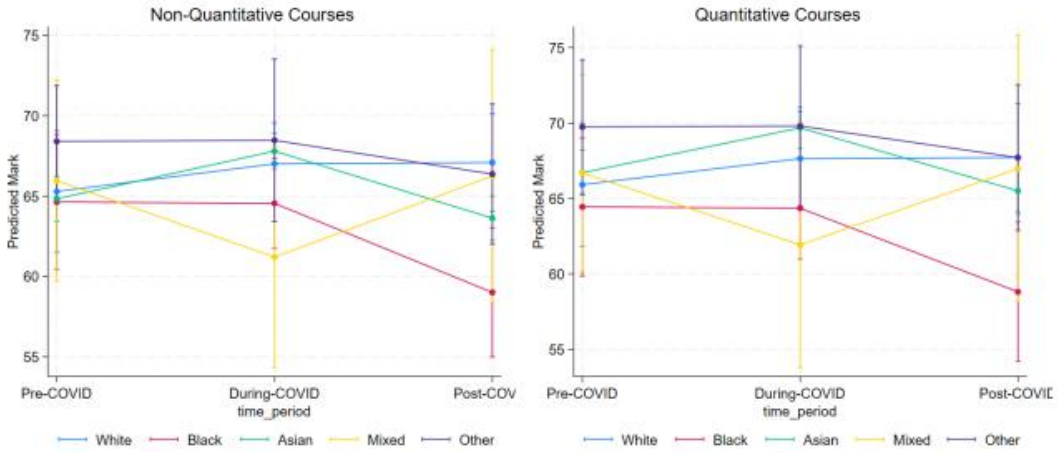
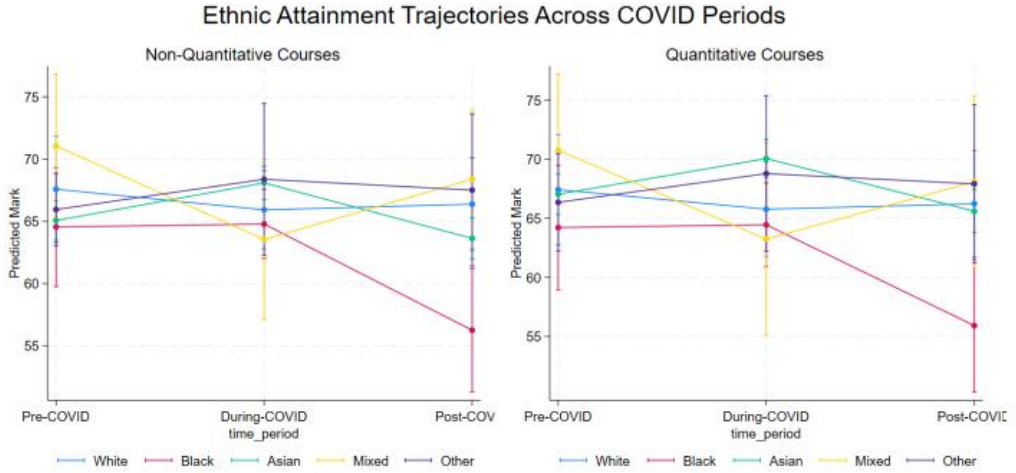
Results Model 1

3 Degrees (Economics, Econ and Finance, EFM Joint programme)



Note: Vertical bars show 95% confidence intervals.

Economics (BSc)



Note: All Ethnicity groups.

Results Model 1

3 Degrees (Economics, Econ and Finance, EFM Joint programme)

- **COVID effects varied:** White, Asian, and Other groups stayed stable or improved, while **Mixed-heritage students dropped sharply** and **Black students showed little change**.

- **Post-COVID gaps widen: Black students decline markedly** across all module types; **Mixed-heritage students recover only partially**, increasing gaps with other groups.

- **Structural pattern:** Similar trends appear in Economics-only data, indicating **system-wide drivers** rather than subject- or assessment-specific effects.

	White-Black Gap	p-value	White-Asian Gap	p-value	White-Mixed Gap	p-value	White –Other Gap	p-value
NON-QUANTITATIVE MODULES Gaps								
Pre	0.65	0.822	0.46	0.825	-0.67	0.857	-3.12	0.235
COVID	2.47	0.202	-0.79	0.572	5.81	0.123	-1.46	0.614
Post	**8.08*** **	0.002	**3.46** **	0.038	0.83	0.847	0.71	0.793
QUANTITATIVE MODULES Gaps								
Pre	1.47	0.639	-0.79	0.722	0.14	0.971	-3.82	0.216
COVID	3.29	0.161	-2.04	0.237	5.71	0.202	-2.16	0.492
Post	**8.9*** **	0.003	2.21	0.26	0.74	0.88	0.01	0.997

(*) not all joints degrees are included (we included only those related to Finance and Management).

Results Model 1

Economics (BSc)

Ethnicity	Ethnicity attainment Gaps		
	Pre-Covid	Covid	Post-Covid
White vs. Black (quant=0)	3.034 (p=0.355)	1.142 (p=0.593)	**10.130*** ** (p=0.001)
White vs Asian (quant=0)	2.511 (p=0.281)	-2.1612 (p=0.216)	2.749 (p=0.172)
White vs Black (quant=1)	3.210 (p=0.371)	1.319 (p=0.629)	**10.308*** ** (p=0.005)
White vs Asian (quant=1)	0.388 (p=0.879)	**-4.284*** (p=0.053)	0.627 (p=0.797)
Result	No gaps	Advantage gap for Asian in Quant	Gaps for Black in quant and in non-quant

Note: *** p<0.01, ** p<0.05, * p<0.10.

Within Group Differences

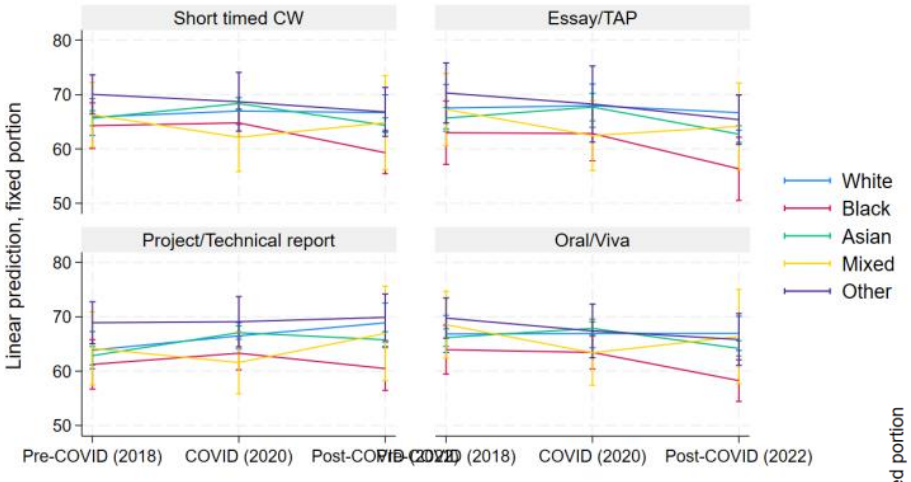
Ethnicity	Academic year			Module
	Pre-Covid vs. Covid	Post-Covid vs. Covid	Post-Covid vs. Pre-Covid	Quant vs. Non-Quant
White	2.267	0.823	-1.444	-0.680
Black	-0.376	**-8.165*** **	**-8.541*** **	-0.856
Asian	**-2.405** **	**-4.088*** **	-1.683	**1.443*** **

Note: *** p<0.01, ** p<0.05, * p<0.10. Time columns show predicted change in marks for each ethnic group relative to their COVID (2020-21) baseline. Module column shows quantitative module effects (difference between quant and non-quant performance) for each group.

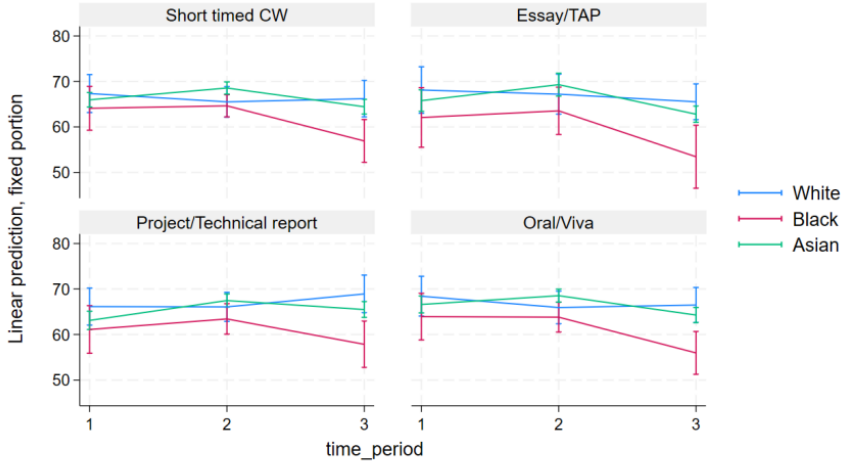
- Asian students show a peak during the COVID online assessment period, followed by a return to pre-COVID levels post-COVID (return to in-person exams).
- **Black students show the sharpest deterioration**, with a marked decline in the post-COVID period.
- **White students** remain broadly **stable** and have the highest performance post-COVID.
- **Awarding gap** (vs. White group) **convergence during COVID and a large divergence post-COVID, driven by a widening White–Black** gap.
- Across modules, Asian–White differences narrow more in quantitative modules (reflecting **Asian students' quantitative advantage**), whereas **Black students experience severe post-COVID losses in both module types.**

Module 2 (Coursework / In-term Assessments)

3 Degrees (Economics, Econ and Finance, EFM Joint programme)



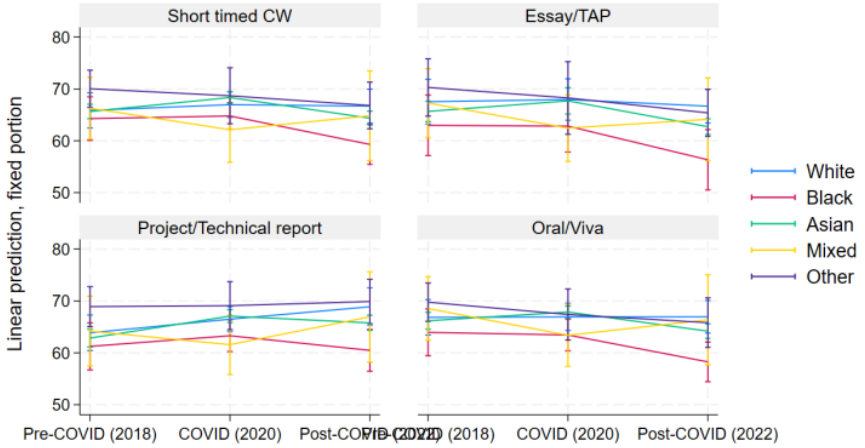
Economics



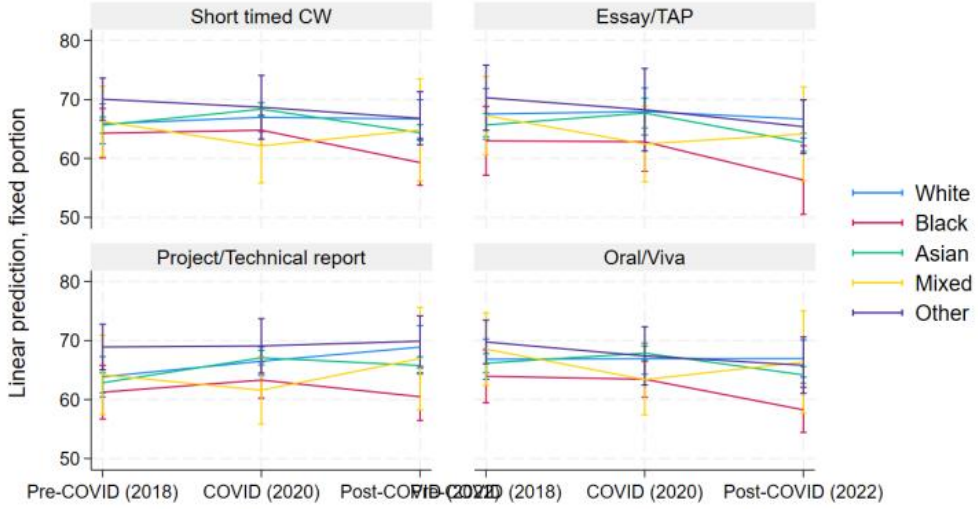
Note: time period (1 = Pre-COVID, 2=COVID, 3=Post-COVID). Vertical bars show 95% confidence intervals.

Model 2 3 degrees

3 Degrees (Economics, Econ and Finance, EFM Joint programme)



Economics



Results Model 3

3 Degrees (Economics, Econ and Fincance, EFM Joint programme)

Exam Type	White-Black	p-value	White-Asian	p-value	White-Mixed	p-value	White-Others	p-value
NON-QUANTITATIVE MODULES								
Traditional UEX pre-Covid	0.72	0.779	1.14	0.509	0.02	0.995	-2.57	0.276
COVID Digital	2.29	0.125	-0.37	0.747	3.9	0.155	-1.48	0.585
UEX Post-Covid	**8.08*** **	0.001	**2.71***	0.097	2.37	0.605	0.68	0.806
Untimed Post-Covid	**9.28*** **	0.001	**3.3****	0.024	4.68	0.293	0.94	0.705
QUANTITATIVE MODULES								
Exam Type	White-Black	p-value	White-Asian	p-value	White-Mixed	p-value	White-Others	p-value
Traditional UEX Pre-Covid	1.62	0.572	-0.29	0.88	0.21	0.956	-3.56	0.208
COVID Digital	3.19	0.109	-1.81	0.235	4.09	0.255	-2.47	0.412
UEX Post-Covid	**8.98*** **	0.001	1.27	0.502	2.56	0.612	-0.31	0.919

Economics

Exam Types	ite-Black	p-value	White-Asian	p-value	White-Mixed	p-value
NON-QUANTITATIVE MODULES						
Traditional UEX (Pre-COVID)	2.51	0.420	2.30	0.297	-3.70	0.294
COVID Digital	1.70	0.361	-1.47	0.371	0.69	0.814
UEX (Post-COVID)	**9.55*** **	0.001	2.56	0.202	-0.23	0.951
Untimed (Post-COVID)	**10.8*** **	0.002	2.00	0.298	1.73	0.657
QUANTITATIVE MODULES						
Traditional UEX (Pre-COVID)	2.83	0.425	0.21	0.934	-2.91	0.465
COVID Digital	2.03	0.423	**-3.56***	0.093	1.47	0.712
UEX Post-COVID	**9.87*** **	0.004	0.46	0.847	0.56	0.901

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Other Factors:

Categories	Overall	In-term	Out of term
A. ASSESSMENT & MODULE EFFECTS			
Out-of-term timing (main effect)	**0.251*** **		
× Pre-COVID	**-0.421*** **		**-1.882*** **
× Post-COVID	**-0.365** **		**-3.660*** and -3.331*** **
Core module	**1.894*** **	**1.423*** **	**1.907*** **
Term 2 vs Term 1 assessment	**-0.622** **	**-0.563** **	**-0.592** **
Module level 2	**4.038*** **	**3.677*** **	**3.151*** **
Module level 3	**3.680*** **	**3.105*** **	**3.4178*** **
B. GENDER EFFECTS			
Female (main effect)	**1.835** **	**1.632** **	**1.619** **
Female × Quantitative	**1.631** **	**1.642** **	**1.601** **
C. DISABILITY CONDITION EFFECTS			
Any disability (COVID baseline)	**4.278** **	**4.204** **	**4.387*** **
× Pre-COVID	**-9.012** **	**-9.160*** **	**-10.316*** **
× Post-COVID	-4.547	-4.282	**-4.308* and -6.864** **
D. SOCIOECONOMIC EFFECTS			
High professional occupation	**2.978** **	**2.980*** **	**2.515** **

Conclusions QMUL (3 degrees)

Ethnic attainment gaps shift across periods and formats, with patterns differing from Economics-only analysis. Three main findings:

- **Minimal gaps Pre-COVID and during COVID**
  – Across quantitative and non-quantitative modules, ethnic gaps remain small and statistically insignificant.
  – Mirrors Economics-only results and reflects the temporary equalisation of emergency online assessments.
- **Sharp widening Post-COVID, especially in final exams**
  – Large White–Black gaps emerge across all final-exam formats.
  – White–Asian gaps appear in non-quantitative finals.
  – These disparities are **larger than in Economics-only**, driven mainly by joint and non-Economics programmes.
- **Coursework shows discipline-specific differences**
  – The Asian quantitative coursework advantage seen in Economics is **absent** in the wider School.
  – Non-quantitative coursework shows **post-COVID awarding gaps**, consistent with final-exams.

Conclusions QMUL (Economics)

- **During COVID, attainment gaps disappeared**: Black and White students performed similarly; Asian students temporarily peaked, especially in quantitative modules.

- **Gaps re-emerged only post-COVID — and only for Black students:** Declines appear across all assessment types (quantitative/qualitative, coursework/exams, written/oral).

- **Module domain explains some patterns:** Asian students have a strong quantitative advantage; this prevents a White–Asian gap but **does not** explain the White–Black divergence.

- **Key risk is the *transition out* of crisis:** When emergency supports end and expectations return to normal, Black students fall behind. **Targeted scaffolding during recovery phases** is more effective than redesigning assessment formats.

- **Robust but not causal:** Confounding factors remain, but consistent results across modules, formats, and periods indicate a **real post-COVID divergence centered on Black students**, not an artefact of measurement.

Limitations (QMUL)

Small subgroup sizes: Mixed-heritage and “Other” groups are small, especially in Economics-only, reducing precision and widening confidence intervals.
Programme structure differences: Non-Economics and joint degrees follow varied module/assessment patterns, limiting direct comparability with Economics-only results.
COVID-period variation: Economics used more standardised digital formats, while the wider School used mixed formats, affecting COVID-period outcomes.
Aggregated disability data: “Any disability” grouping masks variation across conditions; differing declaration rates may affect comparisons.
Unobserved characteristics: Data lack information on study habits, digital access, health, responsibilities, and engagement, which may differ across programmes.
Selection and progression effects: Economics follows a more uniform curriculum; wider School pathways introduce potential selection biases.
Period grouping limits detail: Pre-/during-/post-COVID categories smooth over year-specific and cohort-specific variation.

Focus Group
Student Voice

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Focus Group – student voice
Common themes

Assessment:
-Students consistently preferred coursework (in term assessments) to final exams.

-Among the final exams, students **long, open-ended assessments** (essays, reports, take-home exams) stressful, unclear, and harder to plan for; these formats amplify inequalities linked to time, confidence, and home environment.

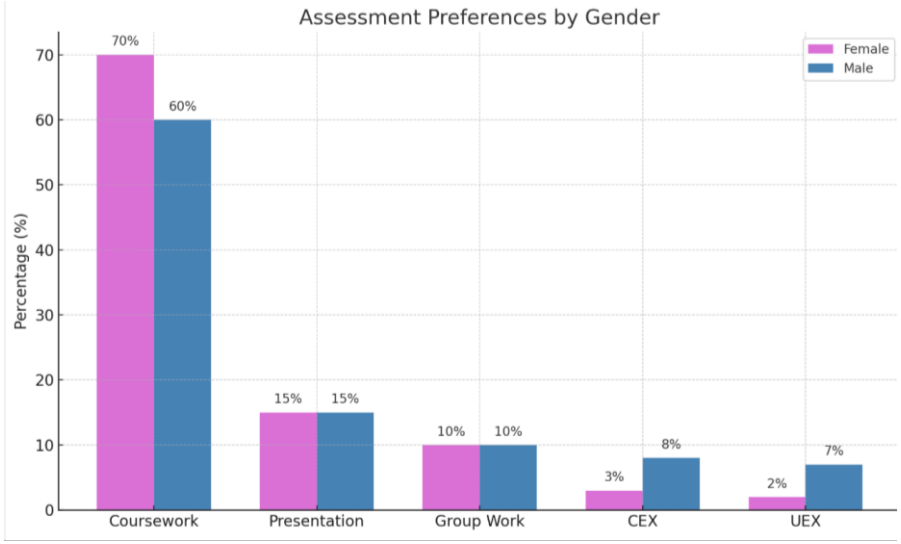
-Timed exams (especially digital timed during COVID) are perceived as **fairer and clearer**, with stronger structure, clearer expectations, and less dependence on external conditions.

-Students report **unequal group-work contributions**, leading to anxiety, resentment, and perceptions of unfairness, particularly when marks are shared.

-Assessment clarity is a universal concern: students want more precise rubrics, exemplars, model answers, and consistency across markers.

Overall Preferences over Assessment

University of Sussex



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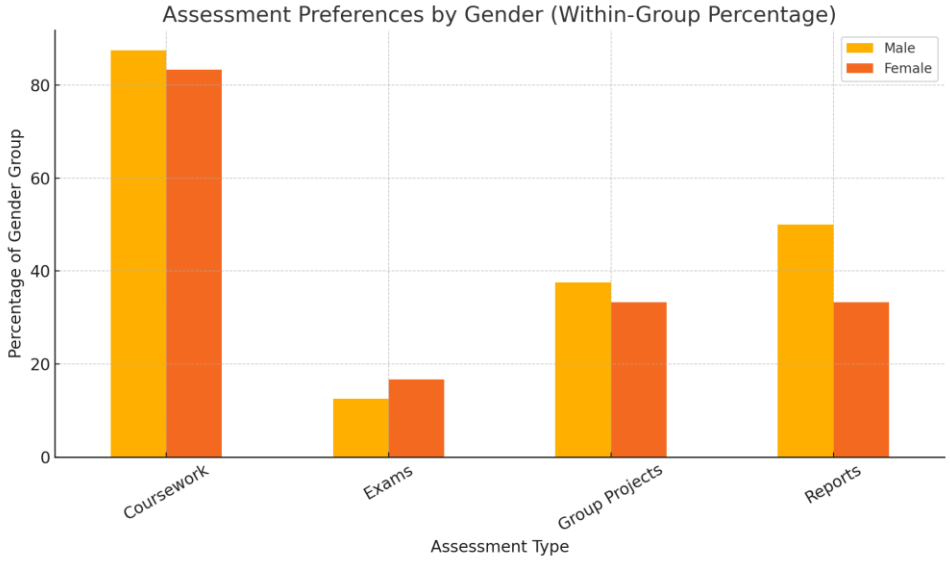

Focus Group – student voice

Teaching:
-Teaching quality and style have a major impact: students value interactive teaching, clear explanations, and lecturers who break down complex material; they criticise assumed prior knowledge and passive content delivery.

-High levels of **maths anxiety** and low confidence are widespread, especially among women and students from underrepresented backgrounds; these patterns influence module choice and create avoidance of quantitative pathways.

Learning:
-Students make **strategic assessment choices**, avoiding modules with heavy final exams or unclear marking, and at UCL actively use "**freedom of information" requests** to identify "safer" assessment formats (more on this in UCL's video).

-Many students describe **post-COVID fatigue, disrupted study habits, and difficulty managing independent learning**, reinforcing the challenges seen in the quantitative analysis.

Gender-Based Insights Across Analytical Themes (UoS)

Theme	Female Participants	Male Participants
Module Selection	Interest, ease, peer influence	Career alignment, lecturer reputation
Math Attitudes	Frequent avoidance, low confidence	Mixed: some confident, some avoidant
Support Needs	Support for anxiety, clearer schedules	Support for clarity, reminders
Emotional Tone & Mental Health	Anxiety around exams, group work stress	Stress mentioned, less frequently tied to gender
Career Utility	Value practical skills, relevant content	Similar emphasis on career relevance

Focus Group: summary

Theme	University of Sussex	Queen Mary University of London	University College London
Assessment Preference	Strong preference for coursework	86% prefer coursework	General preference for coursework; strategic choice
Exam Stress	High anxiety (traditional unseen exam (UEX) and computer-based exam CEX -timed exams)	Stressful, especially timed exams	Mixed attitudes toward exams
Group Work	Mixed views; issues with fairness; disliked when assigned randomly; liked with choice	Disliked without structure	Major dissatisfaction with coursework grades that don't reflect individual contribution
Math Confidence	Avoided by many, especially females	Mixed (some avoid, some embrace); first-year fear	Challenges adapting to quantitative content; preferences vary
Teaching Preferences	Lectures disengaging if passive	Prefer clarity and interactivity	Practical, connected teaching
Seminar	Preferred when small and interactive.	Seminar usefulness tied to peer/tutor dynamic.	Effective when interactive and led by engaged tutors.
Support & Feedback	Value supportive staff; need for timely, structured feedback.	Strong emphasis on formative support.	Appreciated detailed feedback and connection to future modules.
Information Transparency	Vague module titles	Demand for clearer overviews	Frustration over unclear module space availability
Mental Health Concerns	High anxiety and stress	Burnout, pressure	Group tension, unclear grading Stress linked to group dynamics and unclear expectations.
Demographic Influences	Female, Asian students more affected	Confidence tied to culture/gender	General (no group specific) impact on group work

UCL Case Study (Video)

watch video

UCL video

Final Conclusions

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Final Conclusions: comparative analysis

1. **COVID-19 temporarily reduced inequality, especially via digital timed assessments**
   - Black–White gaps closed; Asian students performed strongly; smallest gaps occurred in structured, time-limited digital exams.
   - Emergency online conditions (lower stakes, simpler formats, higher scaffolding) reduced barriers for structurally disadvantaged groups.
2. **Return to standard assessment practices re-opened gaps**
   - Post-COVID, ethnic gaps—especially **Black–White**—sharply re-emerged across coursework, exams, quantitative and non-quantitative modules.
   - Indicates pressures linked to returning to autonomous, high-stakes assessment environments.
3. **Traditional in-person exams and extended open-ended tasks produce the largest disparities**
   - Post-COVID widening is greatest in invigilated finals and long-form written tasks (essays, reports, untimed digital finals).
   - These formats demand sustained independent study and high cognitive load, disadvantaging certain groups—especially Black students.
4. **Quantitative performance does not consistently protect Asian students post-COVID**
   - COVID-era strengths do not generalise; quantitative advantages vary across programmes and formats.
   - Quantitative assessment **does not** explain the White–Black divergence and does not consistently shield Asian students after COVID.

Final Conclusions: comparative analysis

5. **Post-COVID performance declined across all ethnic groups**
- Marks fell at QMUL, UoS, and UCL; declines were steepest for Black and Mixed-heritage students.
- Reflects disrupted schooling, reduced routines, cost-of-living pressures, and rising academic expectations.

6. **Intersectional patterns show persistent structural vulnerabilities**
- Students with mental-health-related disabilities face sustained disadvantages; socioeconomic effects also visible.
- Female students outperform male students across institutions.

7. **Key vulnerability lies in the transition out of crisis, not the crisis itself**
- Gaps did **not** widen during COVID but **after**, when support was withdrawn and high-stakes formats returned.
- Divergence—especially for Black students—appears linked to challenges in self-regulation and intensified expectations.
- Highlights the need for targeted scaffolding during recovery phases, not only during emergencies.

Policy Recommendations

Assessment format and inequality: In digital settings, structured, time-limited assessments tend to reduce attainment gaps, while open-ended formats may widen them—particularly for Black students. Avoid 100% high-stakes assessments in favour of a more balanced and inclusive assessment diet.

Use caution with un-proctored timed digital exams: May reduce disparities but raise equity and integrity concerns due to varied home environments and monitoring limitations.

Post-COVID widening reflects deeper structural pressures: The return to traditional formats coincided with shifts in the learning environment that interact with socioeconomic background, disability, and other structural disadvantages — making stronger scaffolding, assessment literacy, and academic support essential.

Greater programme coherence and targeted support are needed: Aligning practices across programmes and Schools, particularly in joint degrees, and providing focused support for structurally disadvantaged students are key to building a more equitable and resilient assessment system.

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University of London

Thank you