

WHAT CAN EXPLAIN THE GENDER, ETHNIC AND SOCIAL GAPS IN DROPOUT AND DEGREE CLASS?

Evidence from the HESA student records

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“Who Applies, Who Stays, Who Achieves?”

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Questions

- What are the gender, ethnic, and socio-economic gaps in outcomes at university in the UK:
 - Who struggles in the first year, failing or not completing their modules?
 - Who withdraws from university before completing a degree?
 - Who gets a First or an Upper Second?
- How much of these raw gaps can be 'explained' by other differences between these groups?

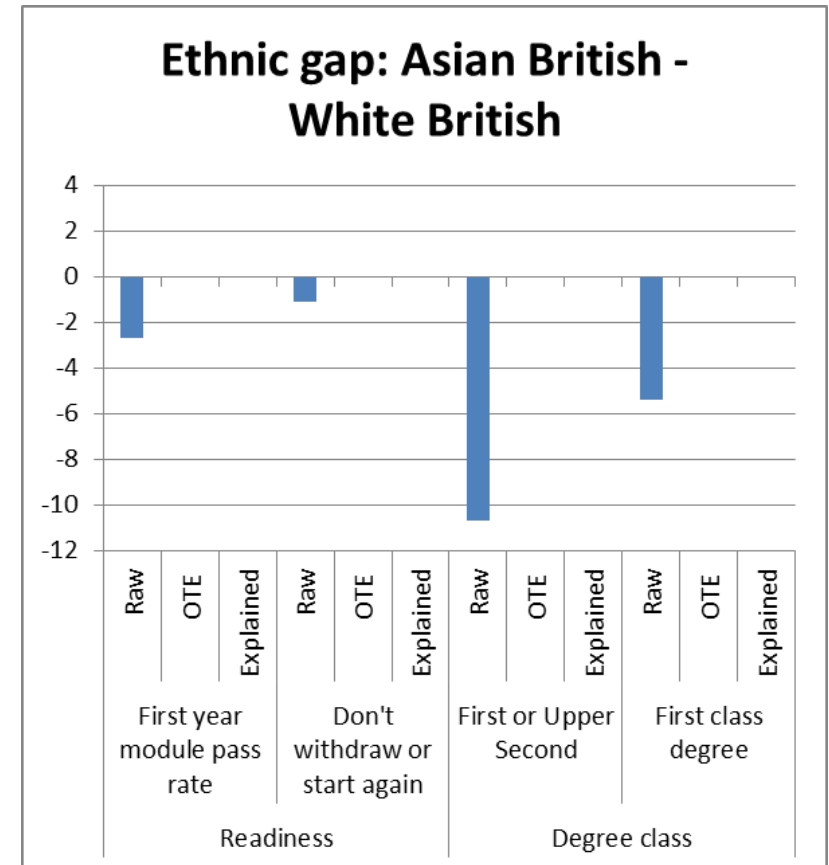
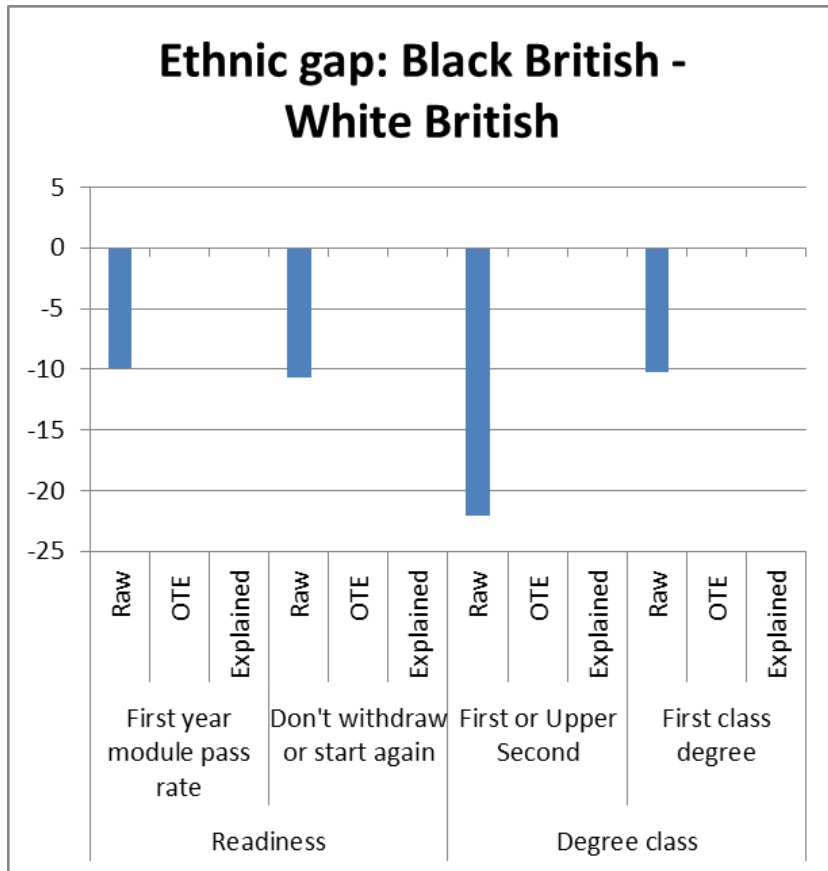
Our data:

- 10% sample of all students starting undergrad' courses between 2007-08 and 2014-15, who don't already have a degree.
- **167,000** seen through a **complete spell at university:**
- 12.7% of first year modules are failed or not completed.
- 20% don't complete degree at first attempt (withdraw or start again)
- So 80% (**133,000**) of these **complete their course**, of whom
 - 16% get a First
 - 48% get a 2:1
 - 23% get a 2:2
 - The rest get a third, a degree without honours, or a lower undergrad' degree.

Breaking down the gaps:

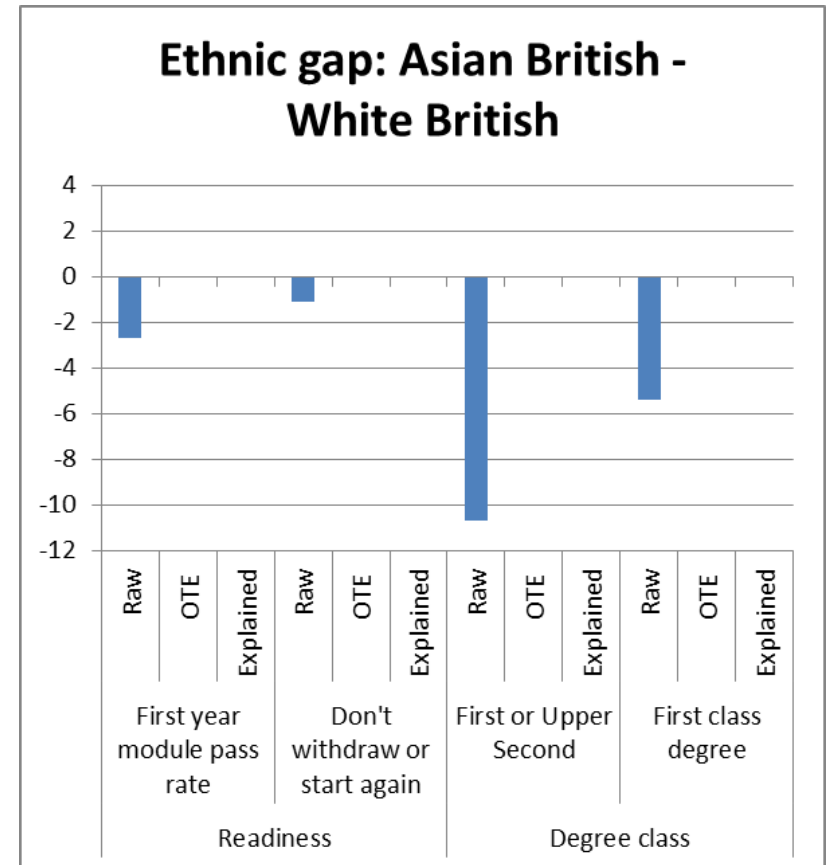
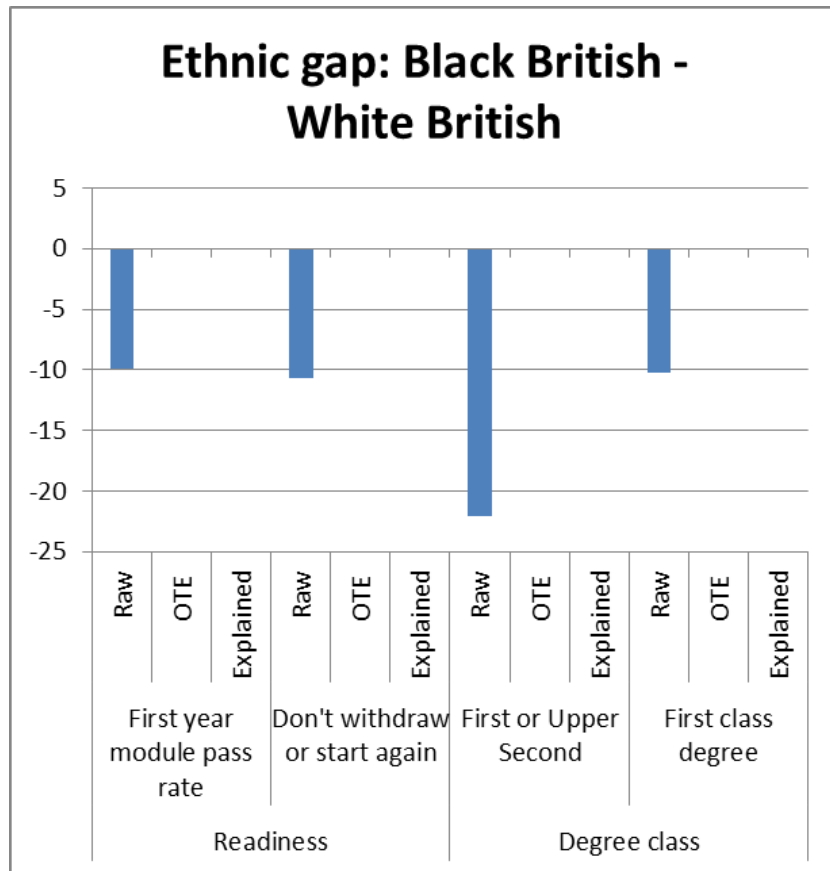
- Ethnic minority British students on average have worse outcomes than white British students.
 - The 'raw gap' is negative.
- Part of this can be explained by ethnic minority students:
 - Being more likely to be from lower socio-economic backgrounds than white students.
 - On average having lower A-Level grades than white students
 - Being more likely to arrive via a vocational route than white students.
 - Taking A-Levels in different subjects to white students.
- There will be an 'unexplained' or 'other things equal' gap left over.

The raw gaps are negative



Straightforward difference between ethnic minority and white, not controlling for anything else

What might explain these gaps?

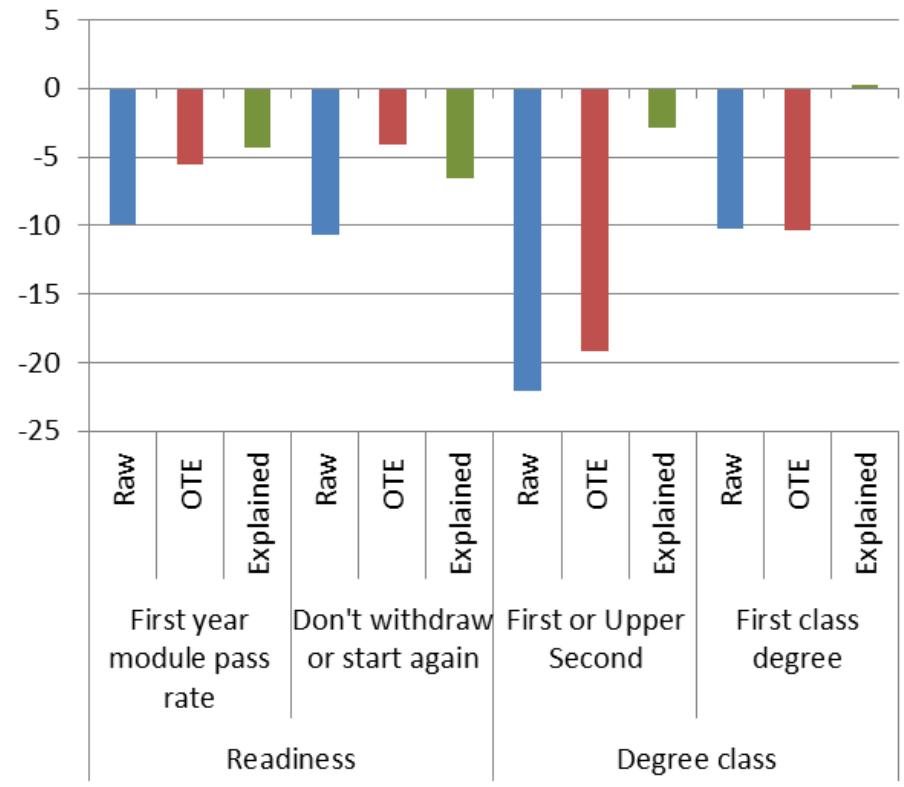


- Socio-economic status
- Private schooling
- Higher Education participation in home neighbourhood
- Age (mature v.young)
- Disabilities

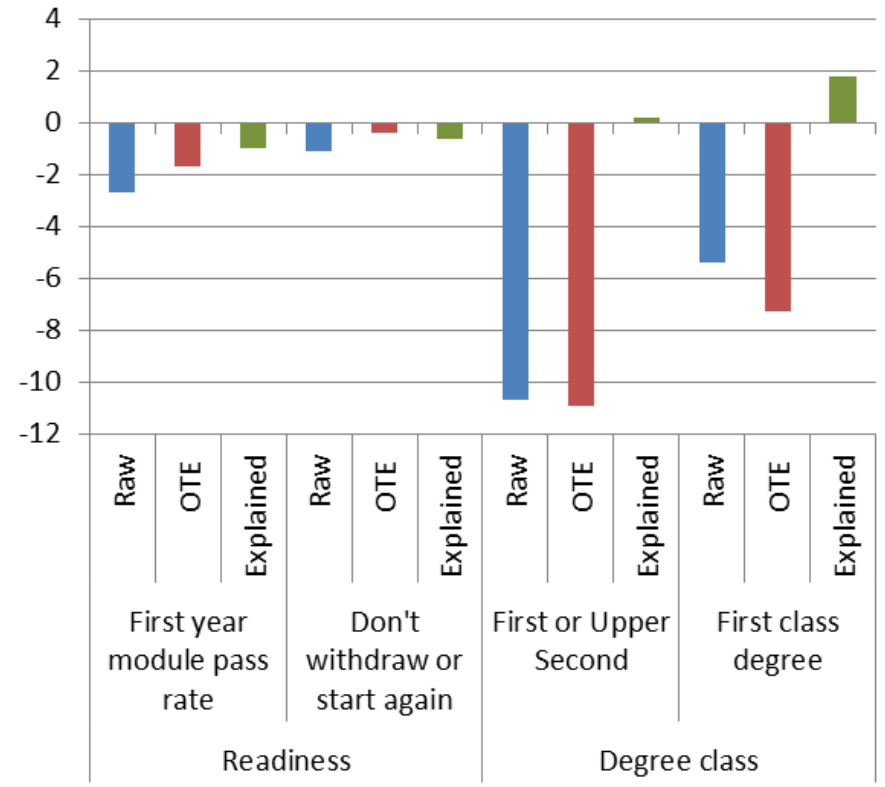
- A-Level subjects taken
- A-Level grades / Other qualifications
- Subject being studied at university
- University Mission Group
- 'Difficulty' of modules being taken.

Raw gap = 'Other things equal gap' + 'Explained gap'

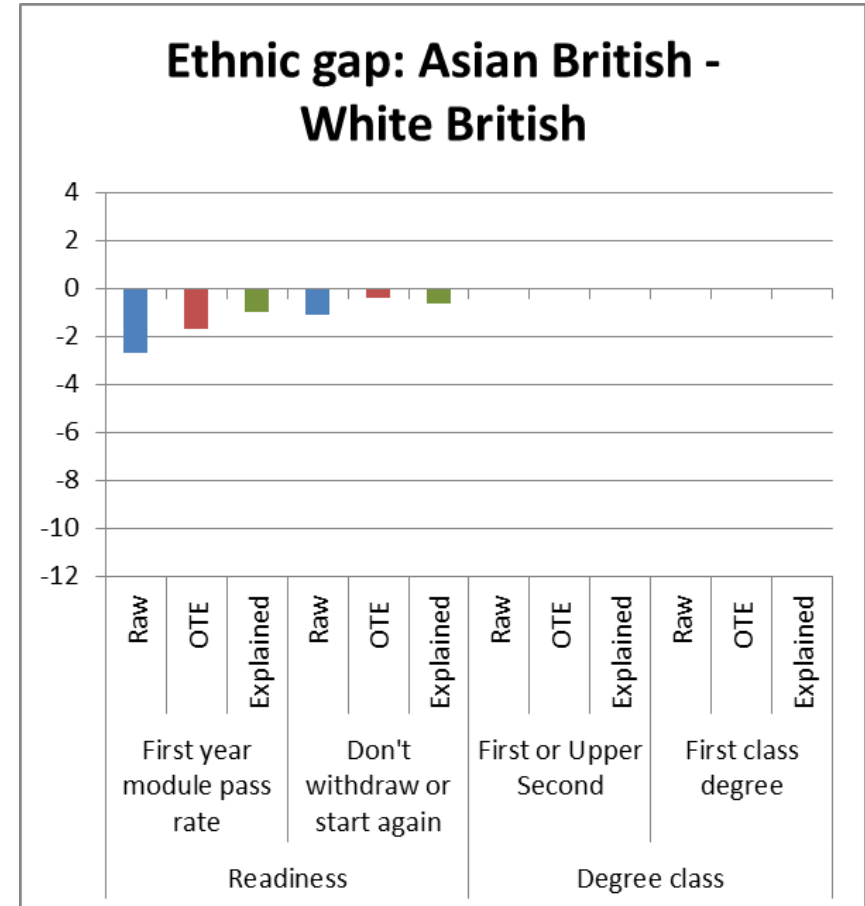
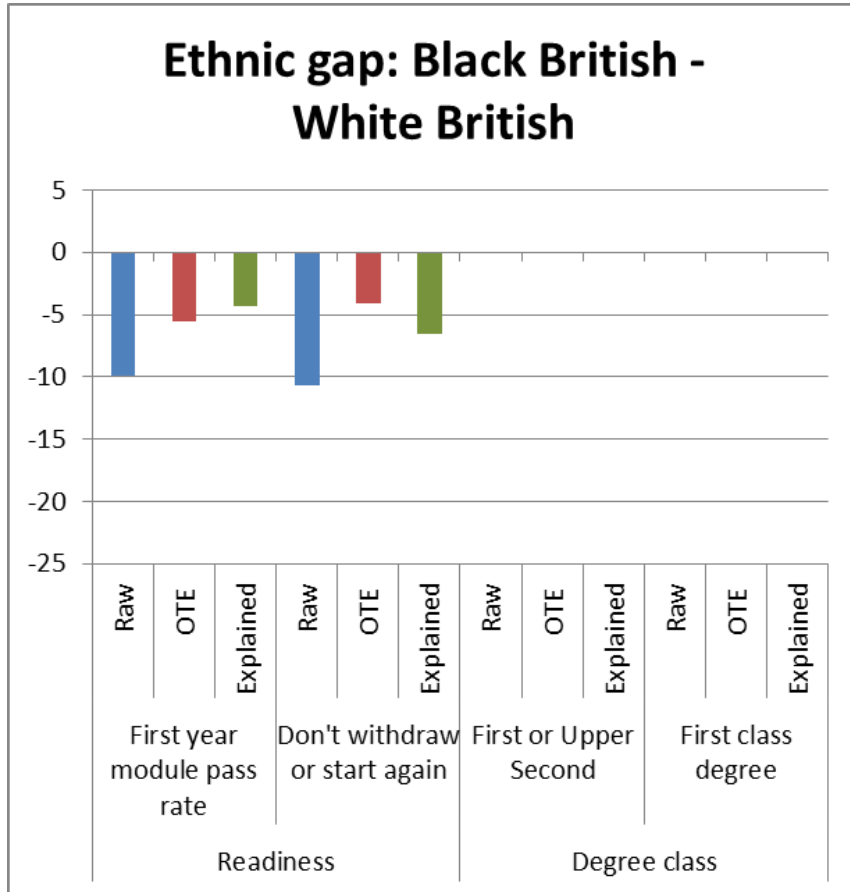
Ethnic gap: Black British - White British



Ethnic gap: Asian British - White British

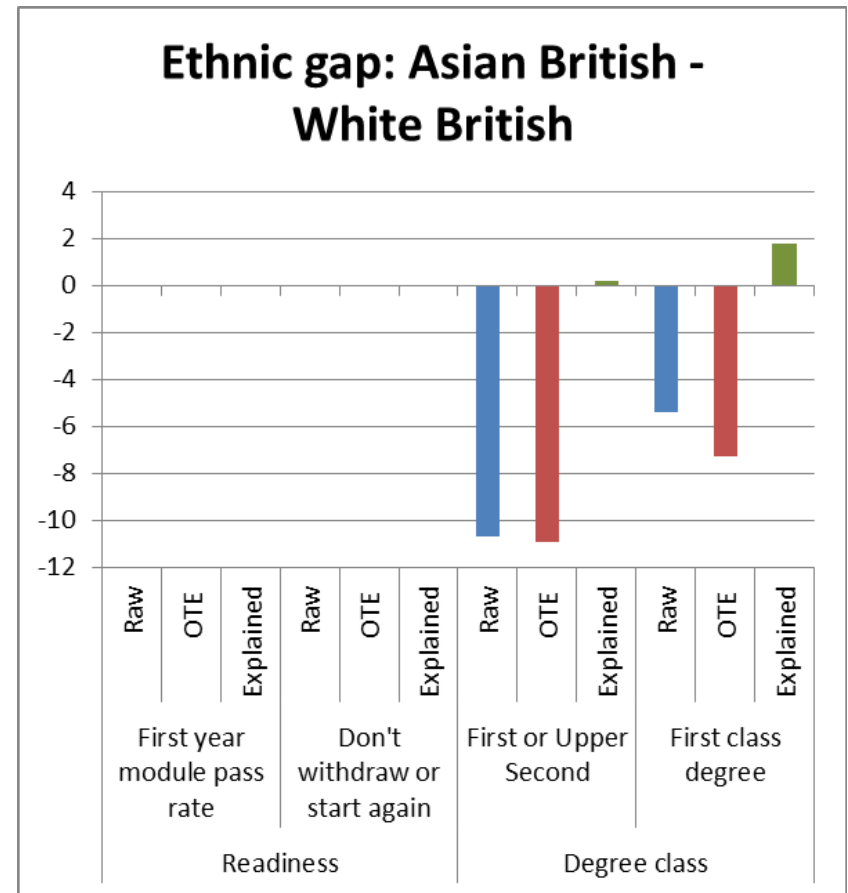
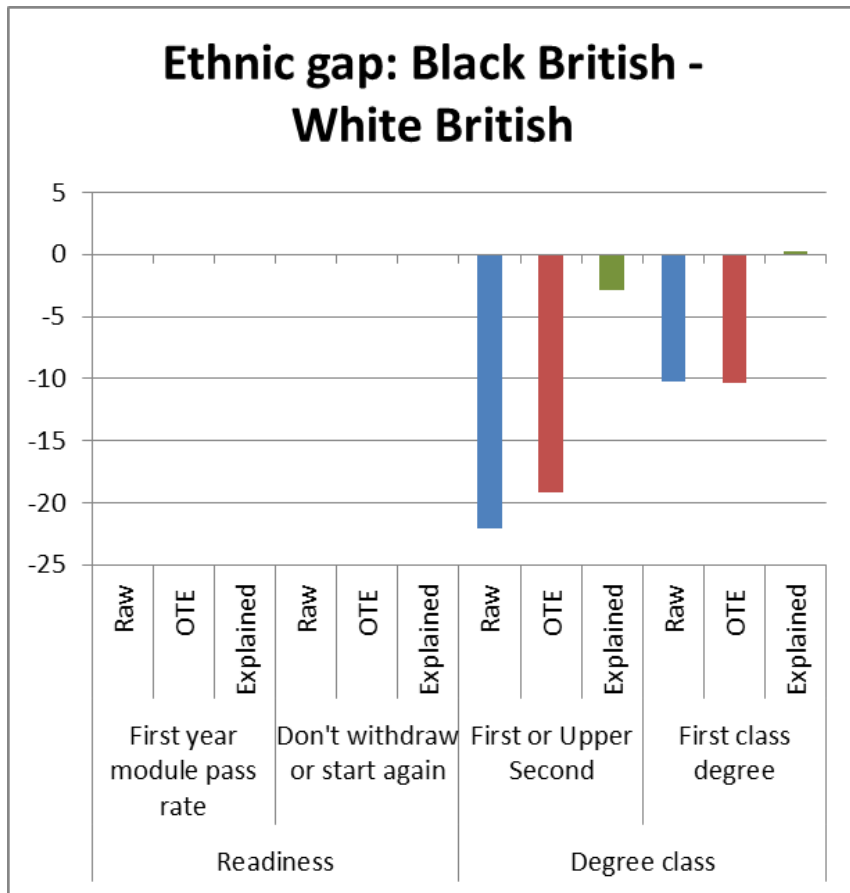


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For university readiness', accounting for these other characteristics can explain **half to two-thirds** of the raw gap.

Raw gap = 'Other things equal gap' + 'Explained gap'

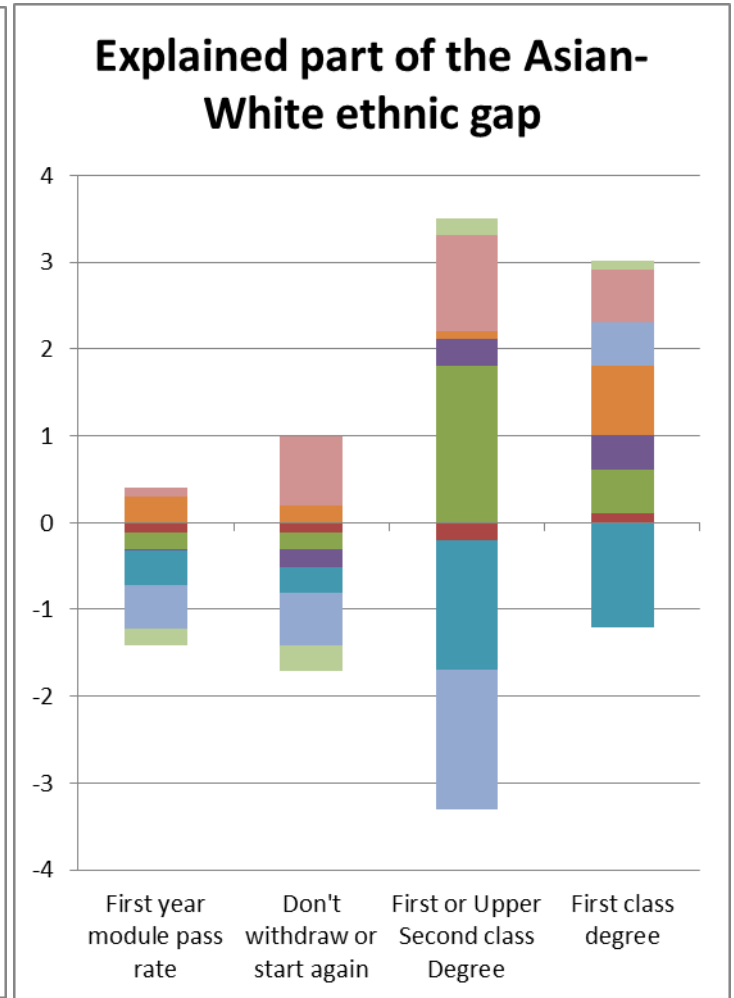
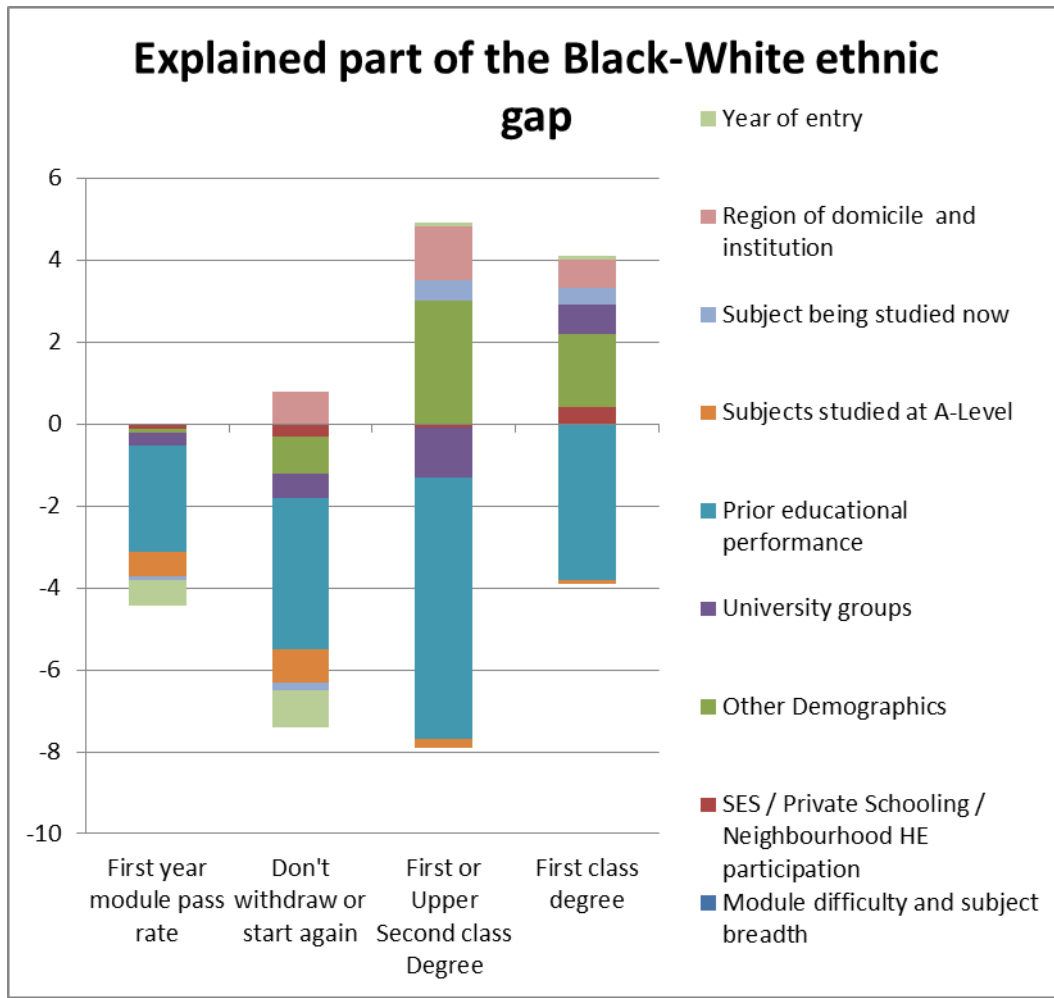


For degree class, accounting for these other characteristics can explain **virtually none** of the raw gap

Raw gap = 'Other things equal gap' + 'Explained gap'

To understand why, we break down the **size and direction** of the '**explained gap**': e.g.

- How much difference does accounting (or not accounting) for **subjects studied at A-Level** make to the 'other things equal' ethnic gap.
versus
- How much difference does accounting (or not accounting) for **subject being studied at university** make to the 'other things equal' ethnic gap.
etc



- Different factors matter for Black and Asian, and for different outcomes.
- Ethnic minority students have advantages compared to white students in some ways.

“Advantages”:

Demographics:

- Black students are much more likely to be **mature** (24%!) than White (9%) or Asian (5%).
 - Mature students have lower progression rate but more likely to get a First or Upper Second if completing.

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- Black students are much more likely to be **mature** (24%!) than White (9%) or Asian (5%).
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- Asian students are much less likely to have a **physical disability or a mental health condition** (4%, versus 9% of White).
 - Students with disabilities less likely to obtain First or Upper Second class degrees.
 - **Either there is under-reporting or there is a big deficit in access to HE for Asian students with disabilities**

Opposite effects:

A-Level subject choices

- Asian students are more likely to choose 'core' A-Level subjects that prepare them well for passing first year, completing their degree and getting a First than white students.
 - esp. Mathematics, Biology, Chemistry.
- Black students are less likely.

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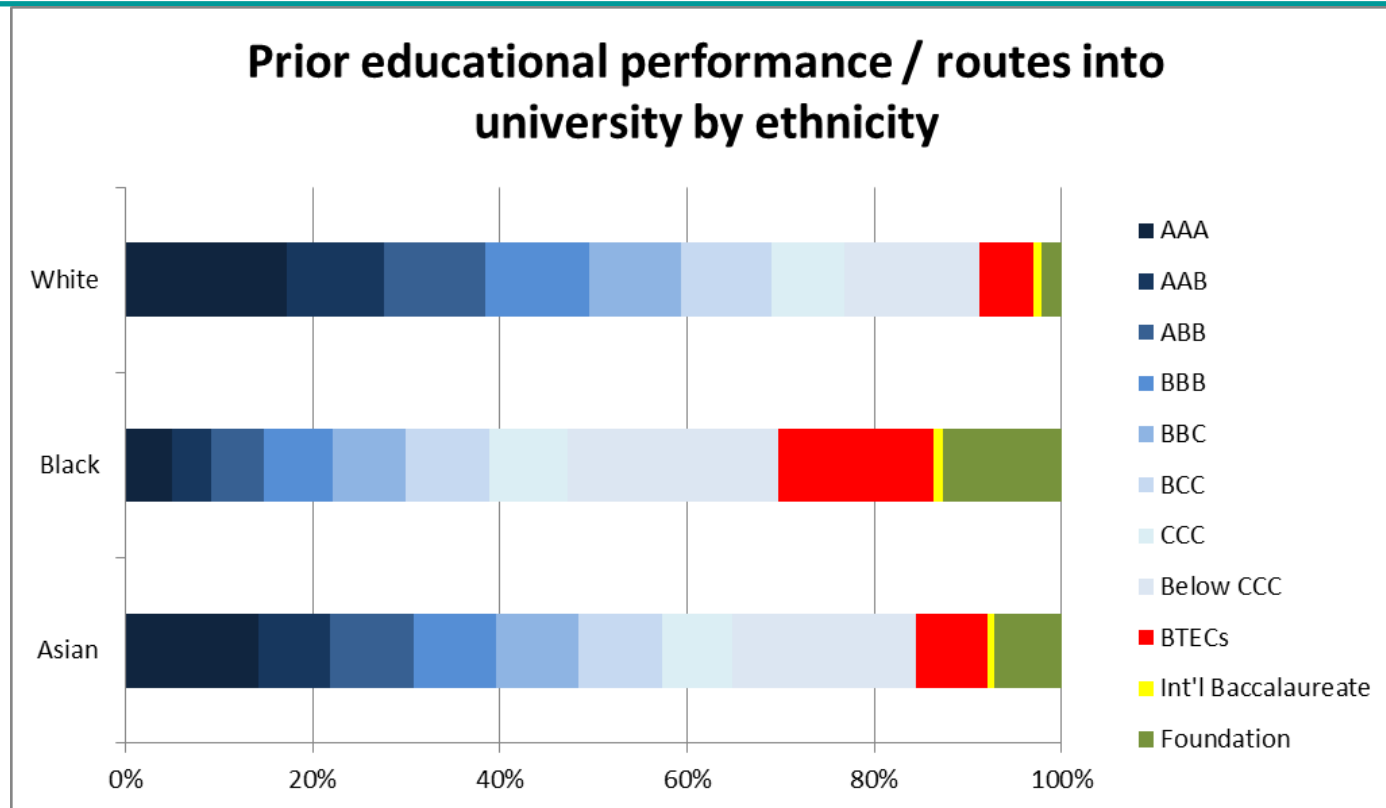
Subject studied at university

- Asian students choose university subjects which have higher module failure or non-completion rates, higher withdrawal rates, and lower chance of being awarded a 2:1 or better than white students.
 - Esp. Pharmacy and Pharmacology, Clinical Medicine, Mathematics
- Black students choose university subjects with a slightly higher chance of being awarded a 2:1 or better than white students.

• “Disadvantages”:

• Prior educational performance and qualification types:

- Black students (especially) have poorer A-Level grades, and a higher rate of arriving at university via a vocational route, than White students.
- Arriving with BTECs rather than A-Levels, even with same tariff score, is associated with a much lower university readiness and degree class.



Closing the ethnic gaps: Lessons for policy (1)

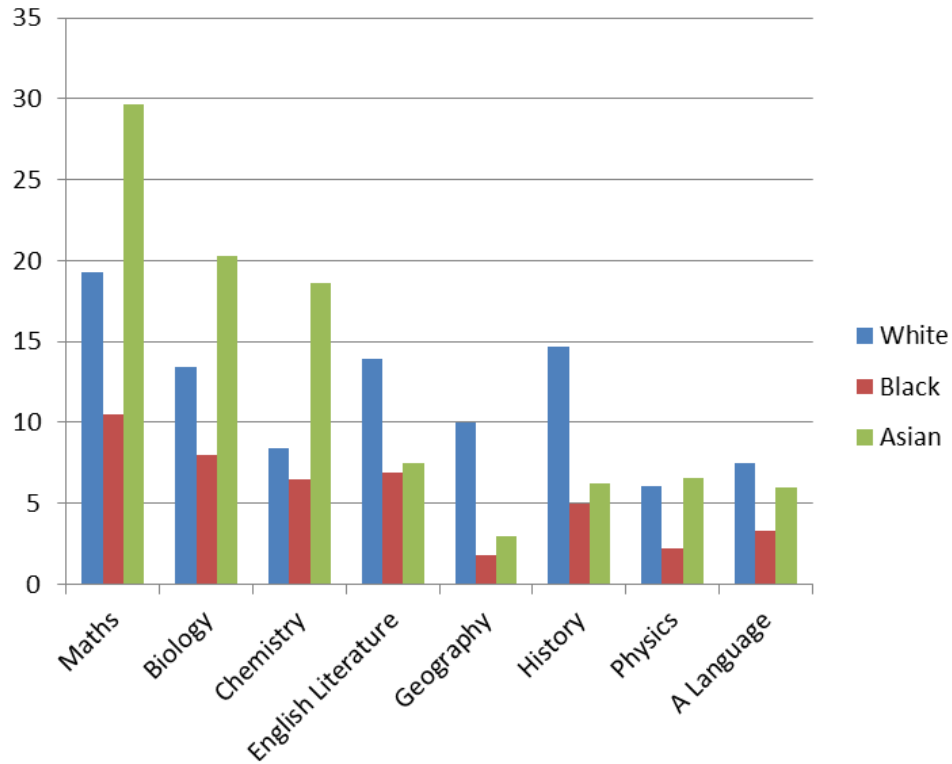
- Having A-Levels at all, and especially in the ‘core’ ‘facilitating subjects,’ does make a big difference to university readiness.
 - Asian British students doing especially well on Maths and Sciences.
 - Black British students much less likely to have any of these subjects.
 - Black British students more likely to arrive via vocational route.
- Improve advice, academic aspirations, availability of core A-Levels before university.
- Targeted support in universities to help transition from practical/lab work (‘BTEC skills’) to academic writing and exam-based assessment (‘A-Level skills’).

Closing the ethnic gaps: Lessons for policy (2)

- Asian students overrepresented in medical courses, IT and Mathematics. These have high first-year failure rates and high withdrawal rates.
 - Maybe not a policy problem: might wish more people from all backgrounds would do these subjects.
 - But withdrawing from university is expensive, even if start again and eventually graduate.
- Expectation or culture of entering professions is partly driving apparent disadvantage seen for Asian-British students relative to White.
- Are differences across subjects in first year module 'difficulty' grounded in skill requirements?
 - Or is to do with the resources needed to teach the rest of the course?
 - Or just a historical quirk?

Thank you for attention

Percentage of students known to have an A-Level in Russell Group 'facilitating subjects'



Marginal effects of A-Levels in 'facilitating subjects' for First Year module pass rate, %pts

