

Ethnic proportionality of teachers and students, and the link to school-level outcomes

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Abstract

In England there are proportionately more White British teachers than White British pupils, and so a mismatch between the proportion of teachers and pupils of each ethnic minority group. This mismatch may reduce appropriate role models for some pupils, and has been linked to differences in school processes, and the behaviour and treatment of ethnic minority pupils. The evidence is weaker on any link between ethnic disproportionality and attainment. This paper uses school-level school workforce and pupil attainment data to assess this link. The results are presented as correlations between teacher/pupil characteristics and attainment scores at ages 11 and 16, and as regression models predicting attainment scores using teacher/pupil characteristics. There is no evidence here that ethnic (dis)proportionality is linked to discernible differences in pupil attainment, once relative poverty is taken into account. However, the data is linked at school rather than individual level, we cannot separate the attainment of pupils of different ethnic origins, and the ethnic classification for teachers is simply binary. We are working to overcome these data limitations, and hope to present future analyses based on individual data with more detailed ethnic groupings, to provide a more definitive result.

Introduction

In the UK, there are many initiatives to create a more balanced teacher workforce, in terms of ethnicity, with the intention of making it more proportionate to the ethnic mix of the student body. These initiatives have been launched in each home country, including England (Gov.UK 2018), Wales (Welsh Government 2023), and Scotland (Scottish Government 2021). Similar policies have been proposed or implemented in the US and elsewhere (Villegas and Lucas 2004, The Education Trust 2022).

There are a number of reasons why a better ethnic match between teachers and their student might be desirable. Any mismatch might suggest a bias in selection or appointment that should be addressed. The mismatch might reduce appropriate role models for some students, and might affect students' treatment, behaviour in school, and even their attainment. This paper focuses on the latter issue.

The paper starts by considering the wider impacts of ethnic disproportionality, before summarising some of the prior evidence on ethnic disproportionality and attainment at school. The methods for this new analysis are described, and then the results. The paper ends by considering the implications and next steps.

The impact of ethnic proportionality

In the US, as elsewhere, there is a clear pattern that areas or schools with more of any category of ethnic minority students are more likely to have teachers of that same ethnic group (Spiegelman 2020). Overall though, the system is not proportionate. Blom et al. (2017) reported that while 4.4 percent of White adults in the US were teachers, only 1.5 percent of Hispanic adults were. Despite some increases, ethnic minority teachers have tended to be under-represented (Lindsay 2017), in the classroom and in school leadership (US Department of Education 2016). They are less likely to be appointed and more likely to leave teaching (Ingersoll et al. 2019, Haque and Elliott 2016). It was estimated that each student will be taught by about 55 individuals during their schooling, but that a Black student in Detroit (for example) might expect to have only one Black teacher (Dilworth and Coleman 2014).

The situation in England appears to be similar. In England, many ethnic minority pupil might never encounter a teacher of the same ethnicity (Gorard et al. 2023). Over 85% of teachers are recorded as being White British, but only 66% of students are (Gov.UK 2021a). So, teachers do not fully represent the student body in this respect. For senior staff, the situation is even more extreme. Around 93% of headteachers and 90% of deputy headteachers are White British (Gov.UK 2021b). Ethnic minority applicants to teacher training have grown, and may now be slightly over-represented. But they have a lower average acceptance rate, worse employment outcomes after training, and higher dropout from the profession (Allen et al. 2016). Those that remain are more likely to be employed in a school in a heavily disadvantaged area, or with a high proportion of disadvantaged students (DfE 2018). Worth et al. (2022) report that ethnic minority teachers are more likely to move schools, and are less likely to be promoted to a leadership position. Why does this matter?

Obviously, this affects the occupational trajectories of the teachers concerned, and the overall fairness of the school system. Another important reason why having too few ethnic minority teachers in the workforce might matter is that it could affect educational processes and outcomes. This could be part of the explanation for some ethnic groups, such as those from Black Caribbean background, having lower than average national attainment results in England (Gorard 2018). This paper looks at some of the prior evidence on ethnic disproportionality, the treatment of students in schools, and the attainment of ethnic minority students. Most prior research is based on small-scale in-depth accounts. The strongest body of work is based on patterns in existing large-scale datasets. There are very few studies with an experimental design (or equivalent) that can provide explicit causal evidence of the impact of disproportionality.

Link to behaviour

There is a reasonably strong and consistent body of work showing that where teacher and student ethnicity match then their relationships tend to be better, and the treatment of the students is often fairer. This is especially so for ethnic minorities. Ethnic minority students with similarly ethnic minority teachers are somewhat less likely to be seen as disruptive or inattentive (Dee 2005), to face a referral for disciplinary reasons, or be excluded (Grissom et al. 2009, Lindsay and Hart 2017, Liu et al. 2023), or suspended from school (Wright 2015, Shirrell et al. 2023). They are less likely to be classified as requiring special education (Strand and Lindsay 2009, Stiefel et al. 2022), to have a pattern of chronic absence (Holt and Gershenson 2015, Gottfried et al. 2022), or to drop out of school (Gershenson et al. 2017).

Matching is linked to fewer behaviour problems for Black students in the US (Morgan and Hu 2023). Students matched with their teachers' ethnicity appear more likely to be referred to a gifted programme (Grissom and Redding 2016, Grissom et al. 2017), and to be happier, more motivated, and with better communication with teachers (Egalite and Kisida 2016). Ethnic minority teachers with similarly ethnic minority students tend to have slightly higher expectations of them than White teachers do (Gershenson et al. 2016) although McGrady and Reynolds (2013) found that while White teachers may have lower expectations of Black students in the US, this is not so for Asian origin students.

Ethnic proportionately clearly matters for processes, decisions, and treatment for ethnic minority students in schools. What is the position for attainment?

Link to attainment

As with teachers assessing behaviour, when student outcomes are judged by their teachers then there is some evidence that the ethnic match makes a difference. When there is a match between the ethnicity of teacher and student then the teacher assessment of student attainment tends to be somewhat higher (Ehrenberg et al. 1995, Ouazad 2014, Driessen 2015). Indeed, intervening to point out similarities between teachers and students seems to lead to better perceived inter-relationships and higher course grades (Gehlbach et al. 2016). On the other hand, Burn et al. (2023) estimate that when teachers assess

student grades than ethnic minority students in England do slightly better than when formally tested in maths, but slightly worse in English (with the picture for White students the reverse).

Despite evidence that some ethnic minority children have lower test and reading scores even from an early age (Ferguson 2003), there is very little existing evidence worldwide that matching ethnicity between teachers and their students is linked to better student performance in standardised tests. It is generally difficult to demonstrate the impact of teacher characteristics on student attainment. In one analysis, not concerned with ethnicity and based on Grade 6 students in Sweden, the teacher characteristics which best predicted attainment were the level of teacher experience and qualification (Johansson et al. 2023). Most studies that take other student and teacher/school characteristics into account (such as student poverty) find little or no difference in the attainment of ethnic minority students with matched or unmatched teachers (Howsen and Trawick 2007). A review of 14 studies by Driessen (2015) found no clear evidence that neither having a match between the ethnicity of teachers and students, nor simply having more ethnic minority teachers, was linked to better standardised test results.

The “effect” sizes of such studies are small, such as less than 1% of one standard deviation in scores (Egalite et al. 2015, Goldhaber et al. 2015). And they can even be negative, as Morgan and Hu (2023) found for science scores for students with teachers of matching ethnicity. In the UK specifically, it is not clear that having mixed ethnicity staff helps ethnic minority student attainment (Cline et al. 2002), but there are some indications that it may be linked to lower White student outcomes.

There are some studies with slightly more positive results. Hess and Leal (1997) used data on US college matriculation rates to show that having minority teachers is linked to somewhat better outcomes for minority students, and perhaps even for all students. However, the ethnic composition of the teaching workforce, and the improved outcomes, could both be the result of prior changes in school district policies. And Gottfried et al. (2023) used around 18,000 kindergarten children from the US Early Childhood Longitudinal Study, and found benefits from racial matching of staff and students for the development working memory skills.

Overall, and unlike results dependent on teacher judgements, prior work taken as a whole does not suggest a link between ethnic proportionality and student attainment in standardised tests.

Methods

This paper presents a secondary analysis of all schools in England, combining information about the teaching staff, school and pupil characteristics and attainment outcomes. The data on teaching staff characteristics (most importantly their ethnicity) comes from the school-level School Workforce Census for 2019. This is available at [School workforce in England, Reporting year 2022 – Explore education statistics – GOV.UK \(explore-education-statistics.service.gov.uk\)](https://www.gov.uk/government/statistics/school-workforce-in-england-reporting-year-2022-explore-education-statistics). The data on pupil characteristics and outcomes comes from the school-level information for 2019 available at [Get Information about Schools - GOV.UK \(get-information-schools.service.gov.uk\)](https://www.gov.uk/government/statistics/get-information-about-schools).

All of the data is linked at school level (i.e. not for individuals), because data at this level is the most detailed that is publicly available. We are negotiating access to individual data for a future analysis, but the data controllers for the School Workforce Census do not generally permit their data to be linked to pupil attainment data, and no school performance data based on individuals has been released by DfE since 2019 (before the Covid-19 lockdown). The two datasets were merged using school ID (URN) as a key.

The merged dataset was sorted by school type, and divided into primary (reporting Key 2 results) and secondary (reporting Key Stage 4 results). The small number of all-age schools was included in both files where they had both KS2 and KS4 results. We removed all non-mainstream settings such as hospitals, PRUs and special schools, not because these are not important but because their patterns of

exam entry and outcomes are often very different. We will examine the ethnic matching of these alternative provision institutions in a future analysis.

The merged dataset had 3,255 mainstream secondary schools or schools with KS4 outcomes, and 14,993 mainstream primary schools or schools with KS2 outcomes. The key variables for each school are the number of pupils by ethnic group, with eligibility for free school meals (FSM – an indicator of low family income) and speaking English as an additional language.

Each record also has the number of teachers and pupils (full-time equivalent), and the number of teachers who are White British, or non-White British. This binary classification is less than ideal but is the only one publicly available at school level. The record also includes, where relevant, the school KS1 points scores, KS2 combined points for English and maths, and the KS4 score for the best 8 GCSE equivalent qualifications (all standard measures of attainment in England). The best 8 or Attainment 8 scores are also presented in terms of average value-added progress from KS2 to KS4 for secondary schools, known as Progress 8.

For each phase of education, the relevant attainment score(s) is correlated with the percentage of teachers and pupils with known characteristics, with the ratio of White teachers to White pupils, and to a variable representing how far the ratio of non-White teachers to pupils deviates from 1. Regression models are also presented using attainment outcomes as the dependent variable, and a combination of the teacher and pupil characteristics plus prior attainment as predictors. The predictors are entered in two main steps in each model. The first step has predictors about pupil characteristics and prior attainment (if relevant) and the second has predictors based on teacher ethnicity and/or the ethnic ratio of teachers and pupils.

Results

Secondary schools

Considering first the correlations between school-level attainment outcomes and teacher/pupil characteristics, Table 1 shows that the strongest links are with prior attainment (KS2 scores) and FSM-eligibility. In general, the association between any indicator and the Progress 8 score is lower than for Attainment 8, but some of these correlations are still substantial. The strongest predictor of KS4 attainment here is KS2 scores. The R is 0.878, yielding an R-squared of 0.77, meaning that 77% of the variation in school level KS4 scores can be predicted/explained by KS2 scores. This is a well-established finding. Secondary school “performance” results like KS4 scores at age 16 are almost entirely determined by the attainment level of the pupil intake at age 11.

Table 1 – Correlations (R) between Key Stage 4 outcomes and student/teacher characteristics, at school level, England 2019

	Attainment 8 score	Progress 8 score
% White British pupils	-0.155	0.021
% White British teachers	-0.085	0.010
% Chinese pupils	0.382	0.052
% White/Asian pupils	0.313	0.133
% Indian pupils	0.260	0.023
% other Asian pupils	0.245	0.046
% other mixed pupils	0.141	-0.061
% Irish pupils	0.134	0.020
% African pupils	0.083	-0.035
% other ethnic group pupils	0.059	-0.057
% other White pupils	0.056	-0.041
% Bangladeshi pupils	0.045	0.046

% Pakistani pupils	0.032	0.035
% White/Black African pupils	0.011	-0.030
% other Black pupils	-0.012	-0.073
% Caribbean pupils	-0.053	-0.093
% Gypsy/Roma pupils	-0.128	-0.070
% Irish traveller pupils	-0.155	-0.109
% White/Black Caribbean pupils	-0.169	-0.087
KS2 scores	0.878	0.472
% pupils eligible for FSM	-0.713	-0.453
% EAL pupils	0.090	-0.013
% unclassified first language pupils	0.041	0.024
% English first language pupils	-0.092	0.021
Ratio White teachers:pupils	0.051	0.015
Disproportionality non-White teachers/pupils	-0.099	-0.018

It is interesting that the Progress 8 scores are still relatively highly correlated with raw KS2 prior scores, even though value-added results are designed to be independent of the raw scores from which they are computed. However, schools with pupils who have higher prior scores have higher Progress 8 scores ($R=0.472$). This lack of independence of underlying raw scores has also been noted before and is an important weakness of so-called value-added (Gorard 2018). The focus in most of the rest of this section is on Attainment 8.

The percentage of FSM-pupils in each school is highly negatively correlated with Attainment 8 (-0.713) and to a lesser extent with Progress 8 (-0.453). This indicator of disadvantage is also a potentially very important predictor of school-level attainment (Gorard et al. 2022). The relationship between the percentage of pupils with English or another first language and attainment is much weaker. To a small extent, schools with more pupils not speaking English as a first language have slightly better raw score results.

Schools with more White British teachers have very slightly worse average Attainment 8 scores. And schools with more pupils in most ethnic minority categories have somewhat higher Attainment 8. This is particularly so for schools with Chinese and Indian pupils. Pupils of Black Caribbean origin tend to have very slightly lower average Attainment 8 (-0.053), and some of the smaller categories such as Gypsy/Roma and Irish Traveller pupils have more substantially lower scores. These results are mostly already well-established (Gorard 2018).

The ratio of White teachers to White pupils has a small positive correlation with attainment, and the disproportionality of non-White teachers to non-White pupils has a small negative correlation. Are these relevant to attainment once other factors, such as poverty, have been taken into account.

The simplest regression model explaining most of the variation in school-level Attainment 8 scores uses only seven predictors (Table 2). As expected, most of the variation explained comes from the prior average attainment of the pupils in that school, followed by the proportion of FSM-eligible pupils. The proportion of teachers with qualified teacher status explains a small amount of variation. Everything else concerns the ethnic origin of pupils. Schools with more Chinese or mixed White and Asian pupils tend to do slightly better than otherwise expected. Schools with more White, or mixed White and Caribbean, pupils tend to do slightly worse. The proportion of ethnic minority teachers, and so the ratio of ethnic minority teachers to students, is irrelevant.

Table 2 – Predictors of Attainment 8

	R	Coefficients in final model
Key Stage 2 Points	0.877	0.632
Percentage of pupils FSM-eligible	0.908	-0.289

Percentage of White British pupils	0.927	-0.210
Percentage pupils Chinese origin	0.934	0.102
Percentage of teachers with QTS	0.937	0.071
Percentage pupils White/Caribbean origin	0.940	-0.061
Percentage pupils White/Asian origin	0.939	0.059

Variables not included in the model are:

- Anything to do with pupils' first language (English, other, or not known)
- Any other category of ethnic minority pupil (Gypsy/Roma, Pakistani, Caribbean, African, Irish, Irish Traveller, any other White background, and any other mixed group)
- Proportion of ethnic minority (non-White British) teachers
- The disproportion of ethnic minority teachers to ethnic minority pupils

The presence of variables in Table 2 illustrate correlations, and are not necessarily causal factors in explaining progress in secondary school from age 11 to age 16. They could be proxies, for example. However, the absence of any variables from Table 2 does suggest that they are not causally related to progress at school.

We reran the model but omitted the KS2 scores because they explain so much variation just by themselves, and so created a raw score prediction rather than a progress model. The model now has final R of 0.807 (weaker than above) and required 10 predictors. The main predictor (R of 0.713) was now FSM-eligibility. The other predictors were the same as above but with the inclusion of more pupil ethnic categories (including African, Bangladeshi, Caribbean, and Pakistani). There is still no role for the ethnicity of teachers, alone or in comparison to the ethnicity of pupils.

Primary schools

The picture for attainment at primary school is very similar to that above. However, the prediction is not quite as strong at each stage (Table 3). The strongest predictor is again prior attainment (KS1 score). The proportion of FSM-eligible pupils remains somewhat important, but is overtaken by the proportion of White British pupils (both linked to somewhat lower KS2 scores). Otherwise the predictors are the figures for the proportion of different ethnic groups of pupils. Again, there is no role for the ethnicity of teachers or the ratios of ethnic minority teachers and pupils.

Table 3 – Predictors of KS2 total scores

	R	Coefficients in final model
KS1 points	0.583	0.477
Percentage of White British pupils	0.611	-0.307
Percentage of pupils FSM-eligible	0.636	-0.204
Percentage of Gypsy/Roma pupils	0.639	-0.060
Percentage of Chinese pupils	0.642	0.045
Percentage of pupils, any other mixed ethnicity	0.643	0.050
Percentage of pupils, unclassified ethnicity	0.645	-0.048
Percentage of pupils, other White ethnicity	0.646	-0.086
Percentage of Irish pupils	0.647	0.040
Percentage of Pakistani pupils	0.648	-0.082
Percentage mixed White and Caribbean pupils	0.650	-0.049

Variables not included in the model are:

- Anything to do with pupils first language (English, other, or not known)

- Any other category of ethnic minority pupil (including Bangladeshi, Caribbean, Indian, African, Irish Traveller, any other White background)
- Proportion of teachers with QTS
- Proportion of ethnic minority (non-White British) teachers
- The ratio of ethnic minority teachers to ethnic minority pupils

As with secondary schools, we ran the model again but without prior attainment (school-level KS1 scores) to allow greater variation to see if teacher ethnicity becomes a potential factor. And again the model was slightly weaker because of this (R of 0.517) with FSM-eligibility now the key predictor (R of 0.421). Now the proportion of teachers with QTS becomes a minor predictor, but there is still no role for the ethnicity of teachers or the ratio of ethnic minority teachers to ethnic minority pupils.

Discussion

The datasets used in this paper are national for all schools in England, and based on verified school census and performance data. There is very little missing data. Combining these datasets at school level leads to the conclusion that the proportion of ethnic minority (non-White) teachers on the staff is not linked to attainment of students, once prior attainment and poverty are taken into account. There is also no link between attainment and the proportion of ethnic minority teachers to ethnic minority students in each school. Poverty is a more substantial predictor of attainment, and teacher qualification and experience are somewhat more important than their ethnicity (as also found by Johansson et al. 2023).

However, the datasets have several key limitations for the purpose they are used for here. The records are for schools not individual teachers or students in those schools. This means that the performance data cannot be separated by ethnicity of student, and compared to the ethnicity of teachers in each school. And the public version of the Schools Workforce Census has two only ethnic categories for teachers at school level. This means that we cannot do a fine-grained analysis of the proportionality of teachers and pupils for each ethnic group, as we have previously done at local authority and regional level (Gorard et al. 2023). We have applied for linked School Workforce Census and National Pupil Database records to overcome these limitations, and have encountered several obstacles (such as that the controllers of the School Workforce Census do not permit it to be linked to performance data). We hope to be able to overcome these and present a fuller analysis in the future. For the present, we conclude that ethnic matching of staff and students does not show up in general attainment results at the school level. This is in line with much of the literature cited earlier.

Of course, even if this finding is confirmed by individual level data, concerns about disproportionately and the barriers faced by some ethnic minority teachers remain. It is right that the employment and deployment of ethnic minority teachers represents the wider society to which the students will later pass. This is not just an issue of proportionality but also about exposure of all students, even in schools and areas that are predominantly White British, to a more diverse teacher workforce. All students can benefit from diversity of cultural experiences and understanding, and students anyway report being somewhat more positive about ethnic minority teachers than White ones (Cherng and Halpin 2016, Miller 2008). As with reduced social segregation of student intakes to schools (Gorard and Smith 2010, Gorard et al. 2022), reduced segregation of teaching staff promises to enhance understanding and tolerance for all stakeholders.

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References

- Allen, R., Bibby, D., Parameshwaran, M. and Nye, P. (2016) *Linking ITT and workforce data: initial teacher training performance profiles and School Workforce Census*, NCTL/DfE
- Blom, E., Lindsay, C. and Tilsley, A. (2017) *Diversifying the Classroom: Examining the Teacher Pipeline*, Urban Institute , [Diversifying the Classroom: Examining the Teacher Pipeline | Urban Institute](#)
- Burn, H., Fumagalli, L. and Rabe, B. (2023) *Teacher grade predictions for ethnic minority groups: Evidence from England*, <https://www.iser.essex.ac.uk/wp-content/uploads/files/working-papers/iser/2023-03.pdf>
- Cherng, HY. and Halpin, P. (2016) The importance of minority teachers: student perceptions of minority versus White teachers. *Educational Researcher*, 45, 7, 407-420
- Cline, T., De Abreu, G., Fihosy, C., Gray, H., Lambert, H. and Neale, J. (2002) *Minority ethnic pupils in mainly White schools*, Research Report, <https://files.eric.ed.gov/fulltext/ED471043.pdf>
- Dee, T. (2005) A Teacher Like Me: Does Race, Ethnicity, or Gender Matter?, *American Economic Review*, 95, 2, 158-165
- DfE (2018) *Analysis of teacher supply, retention and mobility*. London: DfE. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/748164/Teachers_Analysis_Compendium_4_.pdf
- Department of Education (DfE) (2023a) <https://explore-education-statistics.service.gov.uk/find-statistics/school-workforce-in-england>.
- Department of Education (DfE) (2023b) <https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics>
- Dilworth, M. and Coleman, M. (2014) *Time for a Change: Diversity in Teaching Revisited*, National Education Association Center for Great Public Schools, Teacher Quality Department
- Driessen, G. (2015) Teacher ethnicity, student ethnicity, and student outcomes, *Intercultural Education*, 26, 3, 179-191
- Egalite, A. and Kisida, B. (2016) The Effects Of Teacher Match On Students' Academic Perceptions And Attitudes, *AERA Open*, [The Effects of Teacher Match on Students' Academic Perceptions and Attitudes - Anna J. Egalite, Brian Kisida, 2018 \(sagepub.com\)](#)
- Egalite, A., Kisida, B. and Winters, M. (2015) Representation In The Classroom: The Effect Of Own-Race Teachers On Student Achievement, *Economics of Education Review*, 45, 44-52
- Ehrenberg, R., Goldhaber, D. and Brewer, D. (1995) Do Teachers' Race, Gender, and Ethnicity Matter? Evidence from the National Educational Longitudinal Study of 1988, *ILR Review*, 48, 3, 547–561
- Ferguson, R. (2003) Teachers' perceptions and expectations and the Black-White test score gap, *Urban Education*, 38, 4, 460-507
- Gehlbach, H., Brinkworth, M., King, A., Hsu, L., McIntyre, J. and Rogers, T. (2016) Creating birds of similar feathers: Leveraging similarity to improve teacher–student relationships and academic achievement, *Journal of Educational Psychology*, 108(3), 342–352
- Gershenson, S., Hart, C., Lindsay, C. and Papageorge, N. (2017). *The long-run impacts of same-race teachers*, Discussion Paper No. 10630, Bonn: IZA – Institute of Labor Economics
- Gershenson, S., Holt, S. and Papageorge, N. (2016) Who believes in me? The effect of student–teacher demographic match on teacher expectations. *Economics of Education Review*, 52, 209-224
- Goldhaber, D., Theobald, R. and Tien, C. (2015) *The Theoretical And Empirical Arguments For Diversifying The Teacher Workforce: A Review Of The Evidence*, CEDR Policy Brief, Working Paper #2015-9
- Gorard, S. (2018) *Education Policy*, Bristol: Policy Press
- Gorard, S. and Smith, E. (2010) *Equity in Education: an international comparison of pupil perspectives*, London: Palgrave
- Gorard, S., See BH, and Siddiqui, N. (2022) *Making schools better for disadvantaged students*, Abingdon: Routledge
- Gorard, S., Chen, W., Tan, Y., Gazmuri, C., See, BH, Tereshchenko, A, Demie, F. and Siddiqui, N. (2023) The disproportionality of ethnic minority teachers in England: trends, patterns, and

- problems, *Routledge Open Research*, [The disproportionality of ethnic minority ... | Routledge Open Research](#)
- Gottfried, M., Kirksey, J. and Fletcher, T. (2022) Do high school students with a same-race teacher attend class more often?, *Educational Evaluation & Policy Analysis*, 44, 1, 149-169
- Gottfried, M., Little, M. and Ansari, A. (2023) Student-teacher ethnoracial matching in the earliest grades, *Early Education and Development*, <https://www.tandfonline.com/doi/epdf/10.1080/10409289.2023.2172674?needAccess=true&role=button>
- Gov.UK (2018) Diversity of the teaching workforce, [Diversity of the teaching workforce: statement of intent - GOV.UK \(www.gov.uk\)](#)
- Gov.UK (2021a) *Initial teacher training performance profiles*, <https://explore-education-statistics.service.gov.uk/find-statistics/initial-teacher-training-performance-profiles>.
- Gov.UK (2021b) *Ethnicity facts and figures: School teacher workforce*, <https://www.ethnicity-facts-figures.service.gov.uk/workforce-and-business/workforce-diversity/school-teacher-workforce/latest#:~:text=Percentage%20and%20number%20of%20school%20teachers%20by%20ethnicity.%20%207%2C200%20%2019%20more%20rows%20>
- Grissom, J. and Redding, C. (2016) *Discretion and Disproportionality: Explaining The Underrepresentation of High-Achieving Students of Color In Gifted Programs*, AERA Open, [Discretion and Disproportionality: Explaining the Underrepresentation of High-Achieving Students of Color in Gifted Programs - Jason A. Grissom, Christopher Redding, 2016 \(sagepub.com\)](#)
- Grissom, J., Kern, E. and Rodriguez, L. (2017) *Teacher and Principal diversity and the representation of students of color in Gifted Programs: Evidence from National Data*, The University of Chicago Press
- Grissom, J., Nicholson-Crotty, J. and Nicholson-Crotty, S. (2009). Race, Region, and Representative Bureaucracy. *Public Administration Review*, 69, 911-919
- Haque, Z. and Elliott, S. (2016) *Visible and invisible barriers: the impact of racism on BME teachers.*, The Runnymede Trust and NUT, [Layout 1 \(neu.org.uk\)](#)
- Hess, F. and Leal, D. (1997) Minority teachers, minority students, and College Matriculation, *Policy Studies Journal*, 25, 2, 235-248
- Holt, S. and Gershenson, S. (2015) *The Impact Of Teacher Demographic Representation On Student Attendance And Suspension*, IZA Discussion Paper No. 9554, [The Impact of Teacher Demographic Representation on Student Attendance and Suspensions \(iza.org\)](#)
- Howsen, R. and Trawick, M. (2007) Teachers, race and student achievement revisited, *Applied Economics Letters*, 14, 14, 1023-1027
- Ingersoll, R., May, H. and Collins, G. (2019). Recruitment, employment, retention and the minority teacher shortage, *Education Policy Analysis Archives*, 27, 37, <http://dx.doi.org/10.14507/epaa.27.3714>.
- Johansson, S., Gustafsson, J., Hansson, A. and Alatalo, T.(2023) Estimating effects of teacher characteristics on student achievement in reading and mathematics: evidence from Swedish census data, *Scandinavian Journal of Educational Research*, DOI: [10.1080/00313831.2023.2175252](https://doi.org/10.1080/00313831.2023.2175252)
- Lindsay, C. (2017) *Teachers of color are less likely to be teaching than their White counterparts*, Urban Wire, [Teachers of color are less likely to be teaching than their white counterparts | Urban Institute](#)
- Lindsay, C. and Hart, C. (2017) Exposure to same-race teachers and student disciplinary outcomes for Black students in North Carolina, *Educational Evaluation and Policy Analysis*, 39, 3, 485-51
- Liu, J., Penner, E. and Gao, W. (2023) Troublemakers? The role of frequent teacher referrers in expanding racial disciplinary disproportionalities, *Educational Researcher*, [Troublemakers? The Role of Frequent Teacher Referrers in Expanding Racial Disciplinary Disproportionalities - Jing Liu, Emily K. Penner, Wenjing Gao, 2023 \(sagepub.com\)](#)
- McGrady, P. and Reynolds, J. (2013) Racial mismatch in the classroom: Beyond black-white differences, *Sociology of Education*, 86, 1, 3-17

- Miller, P. (2008) Professional lives under review: evaluating the human capital impact of overseas trained teachers (OTTs) on secondary education in London, *Educate: the London journal of doctoral research in education*, 8, 2, 22-35
- Morgan, P, and Hu, E. (2023) Fixed effect estimates of student-teacher racial or ethnic matching in U.S. elementary schools, *Early Childhood Research Quarterly*, 63, 98-112
- Ouazad, A. (2014) *Assessed by a teacher like me: Race And teacher assessments*, [2014_EFP.pdf \(ouazad.com\)](#)
- Scottish Government (2021) *Teaching in a diverse Scotland*, [Teaching in a diverse Scotland - increasing and retaining minority ethnic teachers: 3 years on - gov.scot \(www.gov.scot\)](#)
- Shirrell, M., Bristol, T. and Britton, T. (2023) The effects of student–teacher ethnoracial matching on exclusionary discipline for Asian American, Black, and Latinx Students, *Educational Evaluation and Policy Analysis*, <https://doi.org/10.3102/01623737231175461>
- Spiegelman, M (2020) Race and Ethnicity of Public School Teachers and Their Students. Data Point. NCES 2020-103, *National Center for Education Statistics*, [ERIC - ED607758 - Race and Ethnicity of Public School Teachers and Their Students. Data Point. NCES 2020-103, National Center for Education Statistics, 2020-Sep](#)
- Stiefel, L., Syeda, S., Cimpian, J. and O’Hagan, K. (2022) *The role of school context in explaining racial disproportionality in Special Education*, EdWorkingPaper: 22-661, <https://doi.org/10.26300/sga6-a314>
- Strand, S. and Lindsay, G. (2009) Evidence of ethnic disproportionality in special education in an English population, *The Journal of Special Education*, 43, 3, 174-190
- The Education Trust (2022) *How states can use American Rescue Plan Funding Federal Grants to support teacher diversity*, [How-States-Can-Use-American-Rescue-Plan-Funding-Federal-Grants-to-Support-Teacher-Diversity-October-2022.pdf \(edtrust.org\)](#)
- U.S. Department of Education (2016) *The State of Racial Diversity in the Educator Workforce*, Office of Planning, Evaluation and Policy Development, Policy and Program Studies Service, Washington, D.C., [The State of Racial Diversity in the Educator Workforce](#)
- Villegas, A. and Lucas, T. (2004) Diversifying the teacher workforce: A retrospective and prospective analysis, *Teachers College Record*, 106, 13, 70-104
- Welsh Government (2023) *Launch of incentive to a more diverse teaching workforce*, [Launch of incentive to attract a more diverse teaching workforce | GOV.WALES](#)
- Worth, J., McLean, D. and Charp, C. (2023) Racial equality in the teacher workforce, NFER, [Racial equality in the teacher workforce - NFER](#)
- Wright, A. (2015) *Teachers’ perceptions of students’ disruptive behavior*, Association for Education Finance and Policy Annual Conference, (11) (PDF) [Teachers' Perceptions of Students' Disruptive Behavior: The Effect of Racial Congruence and Consequences for School Suspension * \(researchgate.net\)](#)