Statistical analysis has been conducted to examine various data and its significance.

Most of the data used are from Table 1. All variables are for the academic year 2018/19. Data relating to Spiked free speech rankings and National Student Survey question 26 performance (NSS Q26) have been added. Observations have been removed due to either: unavailable financial statements; no NSS Q26 data; no data relating to block grant income; and unavailable 2018/19 financial statements. The University of Falmouth and University of Exeter share a student union so their block grant is under 'Falmouth' in the sample. There are 31 such observations (see table below). The combined sample totals 108 observations of 16 variables.
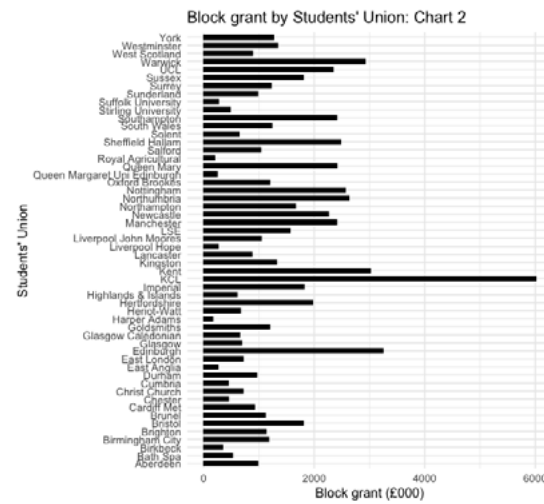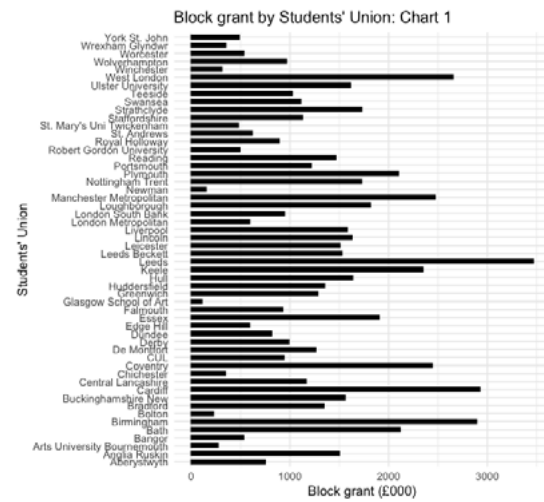
TABLE 6:   OBSERVATIONS REMOVED

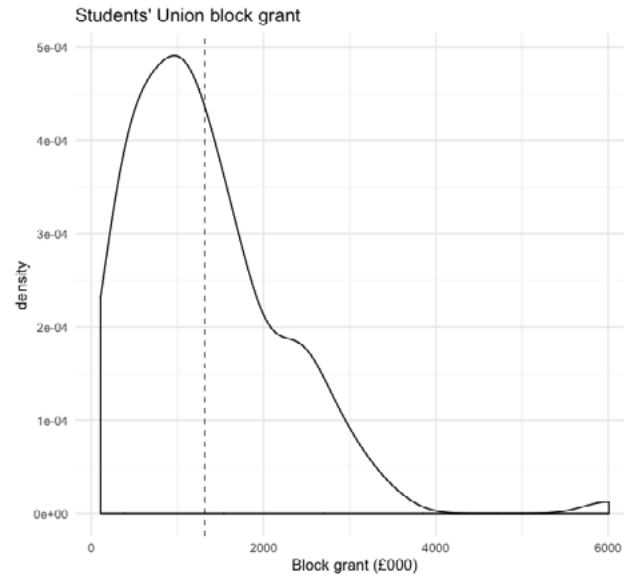| Financial statements not available	2018/19 financial statements unavailable	No NSS Q26 data	Student numbers not up to date
Leeds Arts	Edinburgh Napier	Cambridge	Aston
Royal Academy of Music	Bishop Grosseteste	Cranfield	Gloucestershire
Norwich, Arts	SOAS	London Business School	West of England
Glasgow School of Art	Roehampton	Oxford	Arts, London
Queens Belfast	Bedfordshire	Trinity St David	Abertay Dundee
St Georges	Middlesex	Plymouth Marjon	Creative Arts
Leeds Trinity	Bournemouth	Royal Central School of Speech & Drama	
Royal Veterinary College	Sheffield	SRUC	
SRUC			

Block grant data excludes: one off grants for capital projects and other unspecified purposes; grants of serviced accommodation and university services; and grants for clubs and societies. To the extent that the components of the block grant have been itemised in the financial statements, the previously listed components are not accounted for in the data. This data contains some noise as not all financial statements itemise components of their block grant. These components have been removed so as to have a measure of block grant income that has alternative uses. This income is unrestricted and can be used to fund political activity (sabbatical officer salaries; campaigning; NUS costs). It is the part of the block grant that can be deployed for uses more effective than political campaigning.

Block grant income

The charts below show the block grant income of all student unions in the sample. Glasgow Schools of Arts' student union received £108,000 in block grant income in 2018/19 and is the lowest in the sample. The highest in the sample is King's

College London's student union, which received £6m in block grant income the same year.

Block grant by Students' Union: Chart 1

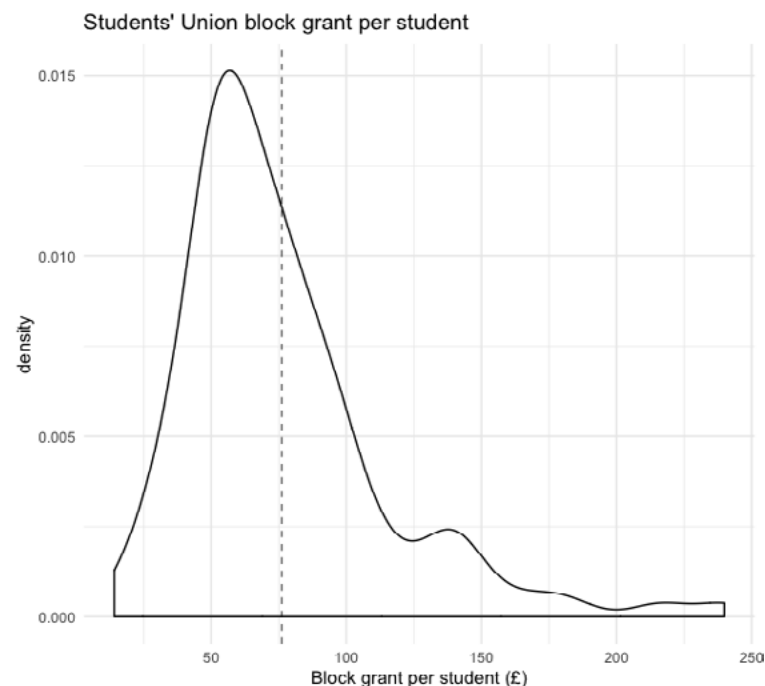Block grant by Students' Union: Chart 2

The density plot of block grant income shows that these data are positively skewed, and have a mean (dotted line in the chart below) of just over £1.3m (the true mean is estimated to lie within £0.175m of £1.3m). 50% of the student unions in the sample have a block grant income less than £1.14m. Student unions between the 50% and 90% percentiles have block grant incomes of between £1.14m and £2.47m. The block grant to King's College London's student union is an outlier in the sample, with the next largest block grant being £3.46m (Leeds).
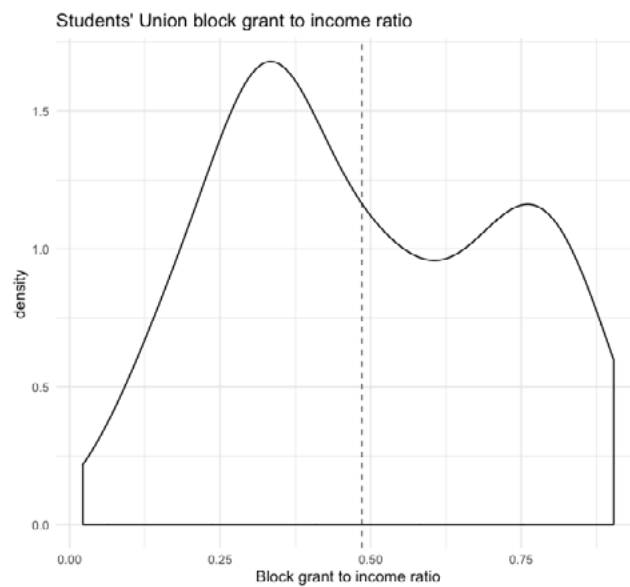

Block grant per student

The density plot of block grant income per student (see below) shows that these data are positively skewed with a mean of £76 (the true mean is estimated to lie within £8 of £76). UEA's student union has the lowest block grant per student in the sample at £14 per student. The highest block grant per student in the sample is the University of West London's student union at £240 per student. 50% of student unions in the sample have block grant funding of below £66 per student. student unions between the 50% and 90% percentiles have block grant income between £66 and £130 per student.
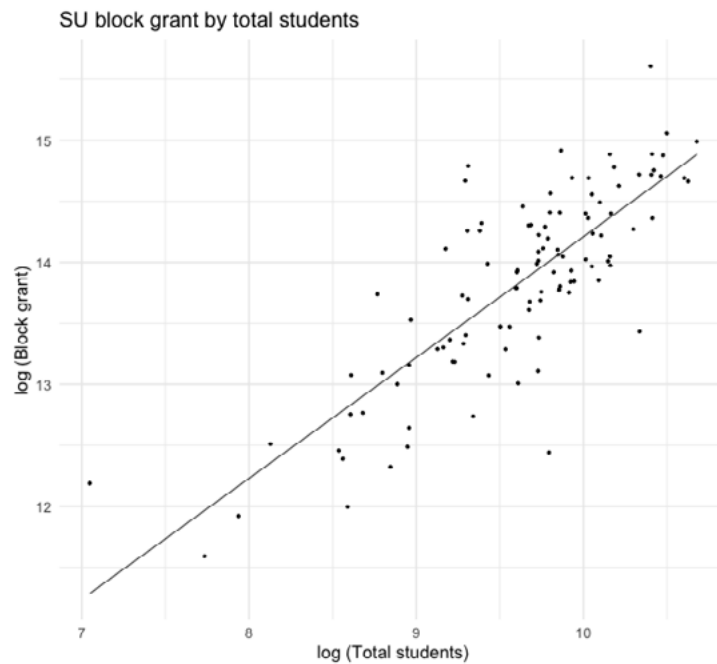
The block grant to income ratio is a measure of the proportion of student union income that comes from block grant funding. Students with a low block grant to income ratio will raise the rest of their income through other grants or income from trading. For example UEA's student union has the lowest block grant to income ratio in the sample at 0.04 (4%) because the vast majority of its income comes from trading activity. The student union had a total income of £10.7m in 2018/19, only £412,000 of which came from its block grant while income from trading operations generated £9.38m.

The mean block grant to income ratio is estimated at 0.48±0.04. The University of the Highlands and Islands' student union has a block grant to income ratio of 0.9, the highest in the sample. 50% of student unions in the sample have a block grant to income ratio below 0.45. Student unions with a block grant to income ratio between the 50% and 90% percentile have block grant to income ratios between 0.45 and 0.81.
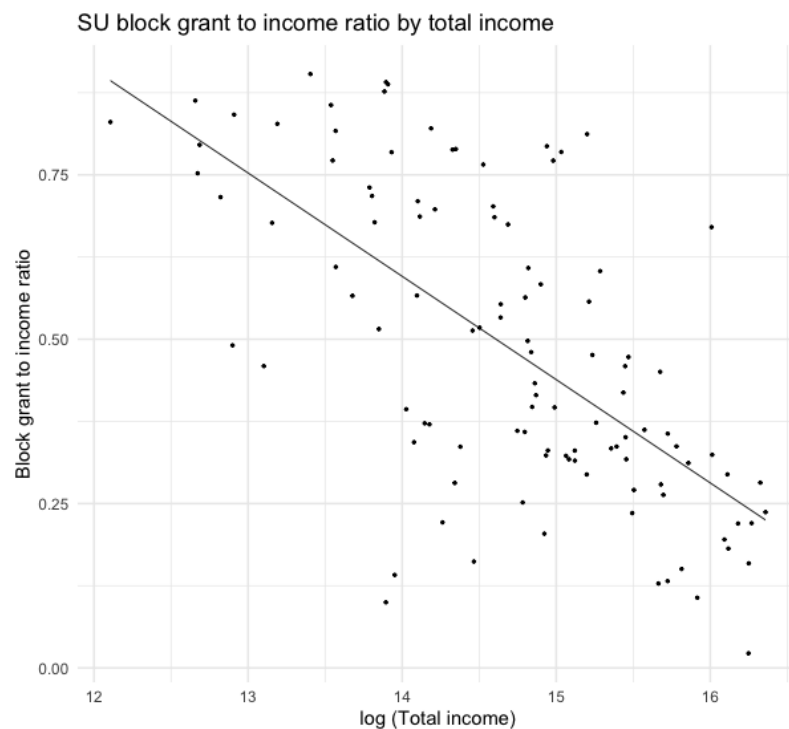
There is a statistically significant association between block grant income and total students (sum total of undergraduate and postgraduate students). Total students explain 65% of the variation in block grant income. As the two variables are strongly correlated it's possible to accurately predict block grant income if the total number of students enrolled in a university is known. Additionally, the analysis shows that for a proportionate increase in total students, the block grant increases by the same proportion. For example if there are two student unions, one with a membership that is 20% higher than the other, the model used to analyse this relationship predicts that the union with a larger membership will have a block grant that is 20% greater.

SU block grant by total students

There is a statistically significant association between block grant to income ratio and total income. The relationship is such that higher incomes are associated with lower block grant to income ratios. This means that student unions with higher incomes are less dependent on the block grant for their income. The analysis carried out on the data indicates that the block grant to income ratio does not decrease proportionately as income increases. This is because student unions with the highest incomes tend to have very low block grant to income ratios and unions with low incomes have very high block grant to income ratios. For example, the model used predicts that if there are two students unions, one of which has 100% more income, the proportion of that union's income that comes from its block grant will be 15% less than the smaller union.

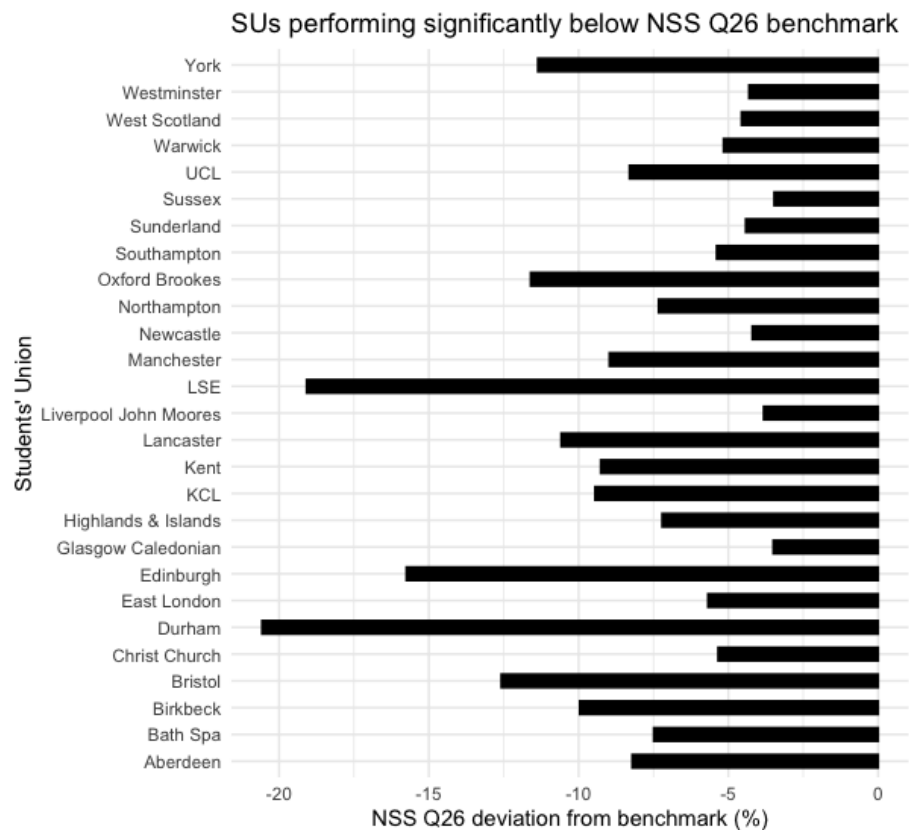SU block grant to income ratio by total income

NSS Question 26

NSS Q26 is a measure of student satisfaction with their student union. It measures satisfaction with its core function – providing academic representation. The question correlates with the following statements (correlations in parentheses): my student union works to ensure the academic needs of students are met (0.496); I understand what the student union is achieving for me and my academic interests (0.484); my student union makes sure I get the best possible academic outcome from my course (0.463). These statements give an indication of how students interpret NSS Q26. The statements with the lowest correlations are: my student union offers a range of relevant opportunities, events and services (0.413); the student union Sabbatical/Student Officers/Executive team effectively represents me (0.408).[146]

---

146 Pg 12 https://wonkhe.com/wp-content/wonkhe-uploads/2017/11/union-futures-nss-q26-public-report-final-sept-2017-1.pdf

The research cited does also show that NSS Q26 performance is associated with prior engagement with the student union. This means that the score could be used to predict how often students have engaged with student union services. Students that used 3-6 services resulted in an NSS Q26 score of 81%, 1-2 services scored 70%, awareness of 3-6 services but not using any scores 64%, awareness of 1-2 services and not used any scored 37%, and awareness of nothing scored 38%.

Benchmark scores are produced for each institution by adjusting for factors known to influence what is being measured. These scores have been adjusted for age, gender, ethnicity, disability, subject studied, and mode of study. The data also indicate if the difference between the score and the student union's benchmark is statistically significant (indicating that the score is unlikely to have arisen by chance). The sample has 27 student unions whose NSS Q26 performance is significantly lower than benchmark. These student unions have an average income of £4.2m against an estimated sector average of £3.6m and average block grant income of £1.6m against an estimated sector average of £1.3m.

SUs performing significantly below NSS Q26 benchmark

Students' Union

NSS Q26 deviation from benchmark (%)

York, Westminster, West Scotland, Warwick, UCL, Sussex, Sunderland, Southampton, Oxford Brookes, Northampton, Newcastle, Manchester, LSE, Liverpool John Moores, Lancaster, Kent, KCL, Highlands & Islands, Glasgow Caledonian, Edinburgh, East London, Durham, Christ Church, Bristol, Birkbeck, Bath Spa, Aberdeen

Spiked ratings

25 of the 27 student unions performing significantly below their NSS Q26 benchmark have been rated red or amber. One observation, the University of the Highlands and Islands has not been rated by Spiked. The other, University of the West of Scotland is rated green.

54% of the universities rated amber have NSS Q26 performance that is below benchmark compared to 50% of all universities in the sample. Several of the universities rated amber that perform below benchmark have NSS Q26 scores that are not significantly below benchmark. 50% of the universities rated red have performance

below benchmark. This indicates that what the rating measures does not produce an effect that can be used to predict NSS Q26 performance.

NSS AND BLOCK GRANT TO INCOME RATIOS

The mean block grant to income ratio increases as NSS Q26 performance decreases. Student unions above benchmark, below benchmark, and significantly below benchmark have mean block grant to income ratios of 0.47, 0.49, and 0.53 respectively. This indicates that student unions that perform well on NSS Q26 tend to have lower block grant to income ratios.

Comparison of NSS Q26 performance by block grant to income ratio