

The Financial Implications of UK Surgical Training: A Systematic Review

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INTRODUCTION



UK surgical training is lengthy and associated with substantial financial burden.



Rising costs risk limiting diversity within the surgical workforce.



Existing evidence is fragmented and lacks standardised reporting.

AIMS



To Quantify, Compare, and Assess the Financial Costs of UK Surgical Training

SEARCH STRATEGY & OUTCOMES

A systematic review was conducted in accordance with PRISMA 2020. Databases searched: Ovid MEDLINE, Scopus, Web of Science and Google Scholar (1999 – Nov 2024).

- Population:** Aspiring surgical trainees, current trainees (FY1–ST8+), consultant surgeons, and institutions involved in surgical training.
- Intervention:** Evaluation of any direct or indirect financial costs of surgical training.
- Comparison:** None.
- Outcome:** Categorisation of financial or indirect costs, trends across specialities, and regional variations.

The average cost of UK surgical training $\approx$ £44,000.

Rising costs and limited funding threaten accessibility, diversity, and long-term sustainability of the surgical workforce.

A London-based low-income medical student could graduate with debts exceeding £174,000 before even entering surgical training.

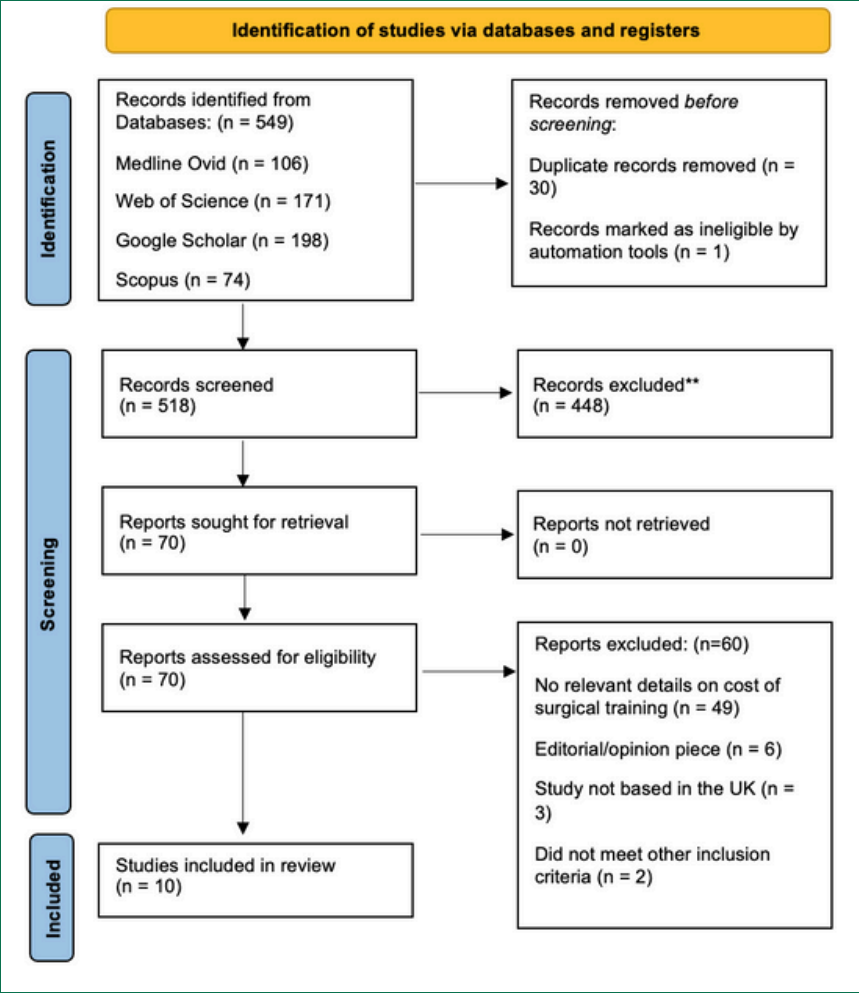
METHODS

The full search strategy and methods can be found in the pre-specified protocol registered on PROSPERO

Two reviewers blindly examined paper titles and abstracts for their eligibility using Rayyan.

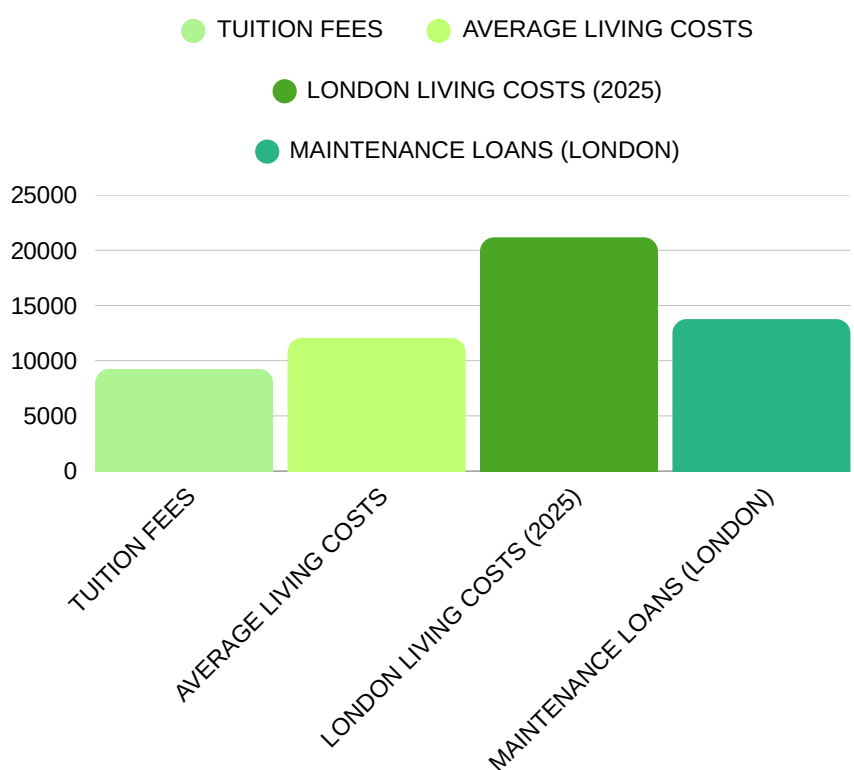
The Methodological Index for Non-Randomised studies (MINORS) scale was used to assess the methodological qualities.

An online collection form was created on Microsoft Excel and was used to record data from the included studies.



UNDERGRADUATE COSTS

- Tuition Fees:** £9,250/year
- Average Living Costs:** £12,056/year
- London Living Costs:** £21,171/year
- Maintenance Loans:** £13,762
- Potential Base Debt (Low Income London Student):** £174,655
- Intercalation (1/3 Students) Debt:** £184,190 (BSc) or £194,655 (MSc)



LIMITATIONS

- Inconsistent cost definitions and reporting.
- Most data were self-reported.
- Demographics and regional cost variations were underreported.
- Qualitative data was not captured.

RISK OF BIAS

Assessed by combining elements of the NIH and JBI appraisal tools. Overall study quality was low to moderate (average = 5/11). Two studies demonstrated low bias.

Total Cumulative Cost (Undergraduate and Postgraduate Costs)

Author	Cumulative Cost (£)
Sheng	2,581
O'Callaghan	90,700 (OMFS = 162,131)
Lovell	8,567 (OMFS = 44,607)
Stroman	12,305
Bullock	3,413
Pawa	2,571
Varley	44,000 (Specific to OMFS)
O'Callaghan	44,800
Oakland	122,015 (up to ST3 only)
Biggs	113,123

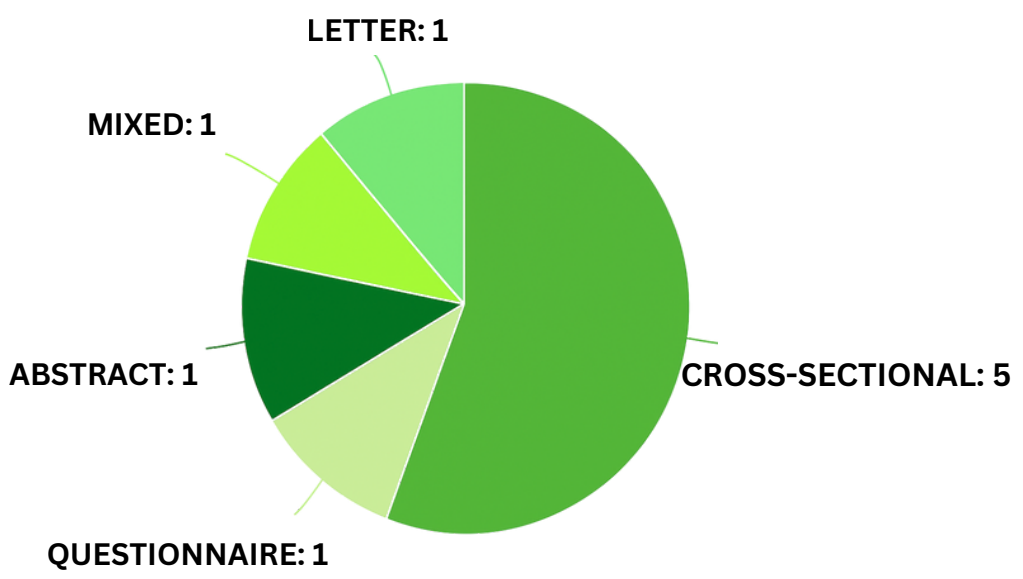
Speciality Specific Costs

Author	Specialty	Desirable Training (£)	Essential Training (£)	Total Cost (£)
O'Callaghan	OMFS	NR	71,431	71,431
Lovell	T&O	4,965	NR	4,965
Lovell	OMFS	22,280	20,780	43,060
Lovell	General	4,965	2,735	7,700
Lovell	Plastics	4,965	2,735	7,700
Lovell	Cardiothoracic	3,075	1,415	4,490
Lovell	ENT	NR	2,230	2,230
Lovell	Urology	4,965	2,735	7,700
Lovell	Vascular	4,965	N4	4,965
Oakland	ENT	NR	NR	5,600 (Conference)
Oakland	Urology	NR	NR	5,500 (Conference)
Oakland	General	NR	NR	5,400 (Conference)
Oakland	Vascular	NR	NR	5,400 (Conference)
Oakland	T&O	NR	NR	4,800 (Conference)

STUDY CHARACTERISTICS

Across our ten included studies, data from 3,717 UK surgical trainees were analysed. Sample sizes ranged from 73 to 1,537 participants.

The average training cost was £44,400 (£2,500 - £162,000), with basic mandatory postgraduate costs often exceeding £10,000.



POSTGRADUATE COSTS

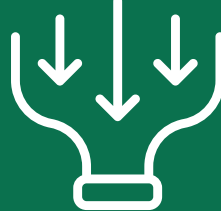
- Mandatory examinations:** MRCS Part A (£625) + Part B (£1,132) = £1,757.
- Mandatory courses:** BSS (£679), ATLS (£760), cCrISP (£859)
- Conferences & revision courses:** Average £5,411
- Postgraduate degrees:** MSc £11,090–£20,000
- Textbooks & materials:** $\approx$ £212 / year
- Royal College membership:** £305 / year
- Total postgraduate training cost:** Typically £2,500 – £120,000+



DISCUSSION



Hidden costs (relocation & relationship strain) add to the burden



Increasing costs risk creating a "second bottleneck" to progression



Financial pressures contribute to attrition and burnout



CONCLUSION

The financial burden of surgical training in the UK is considerable and rising.



High costs threaten workforce diversity and long-term sustainability.



Reform should prioritise support, equity and budget transparency.

