UKRI Data Pack on Research Financial Sustainability Academic Year 2023-24

How to read the Sankey diagrams

Our Sankey diagrams (enlarged in subsequent sections) illustrate the crossflows of funding within the higher education sector.

Income Sources

The nodes on the very left-hand side of the diagram show sources of income, with the income levels shown alongside the different income types:

- Research funding: Research councils; UK-based charities; Industry; Postgraduate funders; Other govt department; EU research grants and contracts; quality-related research funding (QR) or equivalent; and Other research-related income.
- Teaching income: Non-publicly funded teaching and Publicly funded teaching.
- Other income: Other income generating activities and Income/gains from other non-commercial activity.

Full economic cost/no cross-subsidy required

For some activities, such as delivering non-publicly funded teaching, the full economic costs are met by the income intended for these activities.

Across the university sector, at an aggregate level, surplus income primarily derived from delivering non-publicly funded teaching can support the delivery of research activities and publicly funded teaching.

The full economic cost of these activities is shown at the right-hand side of the bar, e.g., full economic cost of delivering non-publicly funded teaching is £8,666 million.

Source of cross-subsidy

It is also possible that the income received for certain activities is in fact greater than the associated full economic costs, meaning that a surplus is generated. These income surpluses (teal bars) flow into the middle of the diagram to labelled ‘HEP surplus’ (higher education provider surplus), utilised to support delivering publicly funded teaching and research and knowledge exchange activities.

Similarly, QR or equivalent funding (yellow bar) can be used flexibly in line with Higher Education Providers’ (HEPs) individual strategic interests (see QR explainer).

Generally, across the higher education sector, the full economic cost of research activities and delivering publicly funded teaching exceeds the income received for those activities. Therefore,

universities utilise QR funding to support research activities, and surplus income from delivering non-publicly funded teaching.

Full economic cost of activity/cross-subsidy required

The nodes on the right-hand side of the diagram represent activities that require cross-subsidisation from other income streams, with the weight of the orange bars denoting the size of the subsidy. The full economic cost (£m) of each activity is shown against the activity description.

Overall, there is a sustainability gap of £2,338 million, representing the amount by which the full economic cost of all HEPs' activities exceeds income.

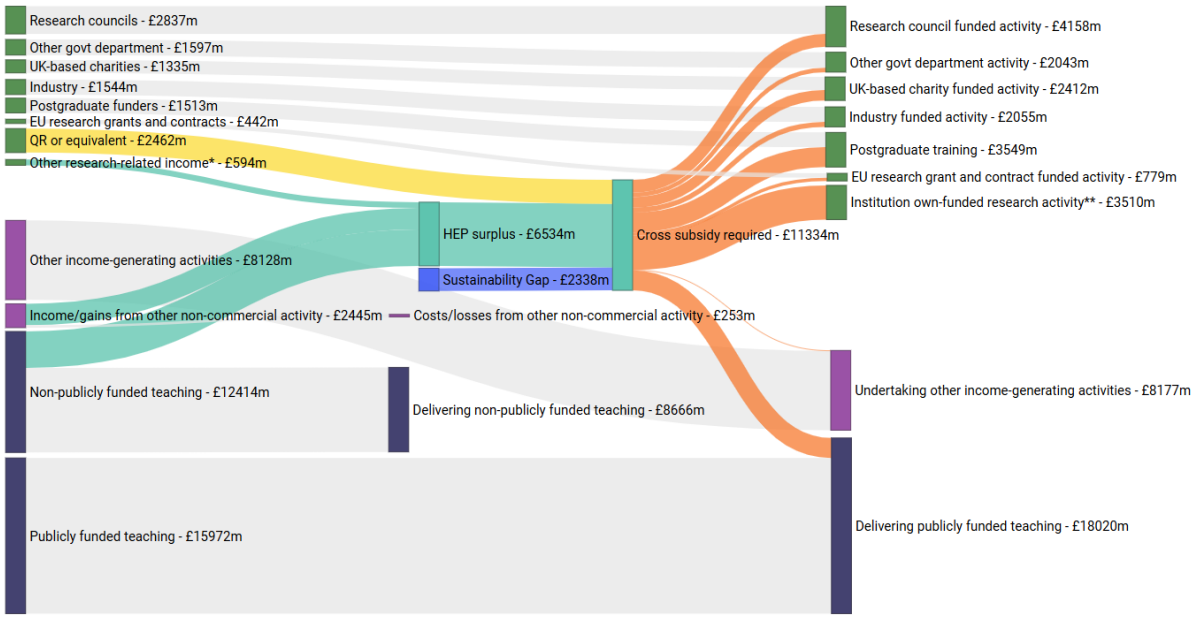

Figure: Sector level Sankey diagram. Source: TRAC data 2023-24.

NB: This diagram represents an approximation of how income streams are mapped to costs; in practice this will be different for individual HEPs. Full economic costs include a Margin for Sustainable Investment (MSI) - a measure of the funding required to sustain future plans for investment. **Source**: 2023-24 TRAC data for 150 UK HEPs.

General Findings from TRAC Data

Sustainability gap

- In academic year (AY) 2023-24, the sustainability gap for the whole higher education sector was £2,338m. This is a decrease of £839m (28%) from the previous year (£3,232m). *

Cost recovery on research

- The total cost recovery on research activities has decreased from 69.3% in 2022-23 to 66.6% in 2023-24.

Research deficit

- The research deficit has increased from £5,619m in 2022-23 to £6,181m in 2023-24.

Cross subsidy

- The cross-subsidy requirement – the amount of funding required for those activities where the full economic cost exceeds the income, as well as the cost of institution own funded research – was £11,334m.

Teaching

- The deficit on publicly funded teaching has continued to increase in 2023-24, to £2,047m.

HEP surplus

- The HEP surplus is defined as the sum of the surplus generating activities, institution own funded and QR income. This figure was £6,534m in AY 2023-24, which was a 36% increase on the previous year.

Other

- Income gains from other non-commercial activity increased by 90.8% in academic year 2023-24 and the surplus between income and costs in this category was £2,192m.

* Where comparisons with previous years are made, constant prices are used (March 2025 version of GDP deflators, FY 23/24 prices used).

The gap between costs and income on research and publicly funded teaching is widening, increasing the reliance on cross-subsidy

Surplus income from international student income and other activities can be used to cross-subsidise public teaching and research activities. In AY 2023-24, the gap between income and costs for research was **£6.2 billion** and for publicly funded teaching was **£2.0 billion**.

Activity	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Teaching (Non-public)	2,379	2,761	2,983	3,405	3,650	3,748
Other (Income generating)	348	-946	-611	272	-157	-49
Other (Non-commercial)	1,387	684	2,872	643	722	2,192

Teaching (Public)	-742	-831	-489	-1,151	-1,827	-2,047
Research	-5,410	-5,434	-4,777	-5,624	-5,619	-6,181
Total	**-2,038**	**-3,767**	**-22**	**-2,454**	**-3,231**	**-2,338**

Table: HEP sector funding gaps by activity (£ million, 2023/24 prices). Source: TRAC data for UK HEPs.

Other (Non-commercial), can include endowments, donations, and investment gains and losses, with fluctuations from year to year (TRAC guidance). In particular, there was significant fluctuation in academic year 2020-21 due to changes brought about by the pandemic.

Teaching and research activities are interdependent: cross-subsidy from international student income supports research activities and cutting-edge research informs curriculum design and practice-led teaching.

The gap between the income received for research and the costs of undertaking research activities arises from a number of factors, including strategic decisions made by higher education providers (HEPs) regarding their research portfolios and the various funding flows that combine to make up the full economic costs of grant-funded activity, support for postgraduate research training, and institution-own funded research.

Other factors to consider in terms of the funding gap:

- Growth in teaching income has been driven by increases in international (non-EU) fee income.
- HEPs increasingly rely on international tuition fees as an income stream that can support cross-subsidy of teaching and research activities.
- HEPs' international reputations and rankings are linked to quality metrics for teaching and research.

Sankey diagram of funding flows in UK universities (AY 2023-24, sector view)

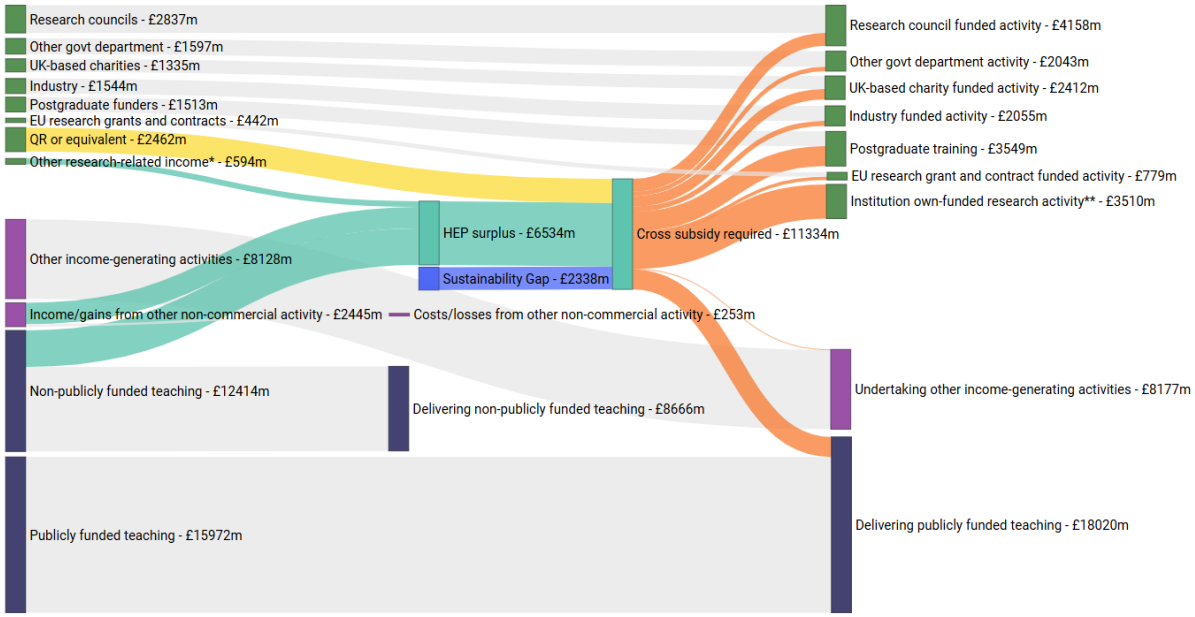

Figure: Sector level Sankey diagram academic year 2023-24. Source: 2023-24 TRAC data for 150 UK universities.

* Including endowments and donations and returns on investments.

** Including commercialisation from university-own funded research, and ringfenced donations and endowments.

- Despite cross-subsidy from surplus-generating income streams, there was still an overall sustainability gap of £2,338 million on all activities. This represents ~5% of the total amount of income received by the sector.
- Other non-commercial income was significantly higher than the last two years in AY 2023-24 (£2,445m).
- The data shows a decrease in activity in European Union (1) funded research, with a decrease of 26.7% in full economic cost (FEC) and 31.1% in income.
- The amount of the cross subsidy covered by HEP surplus generating activities was £6,534m in AY 2023-24, which was a 36% increase on 2022-23.

(1) All research grants and contracts income from all government bodies operating in the EU, which includes the European Commission.

Sankey diagram of funding flows in TRAC group A universities (AY 2023-24)

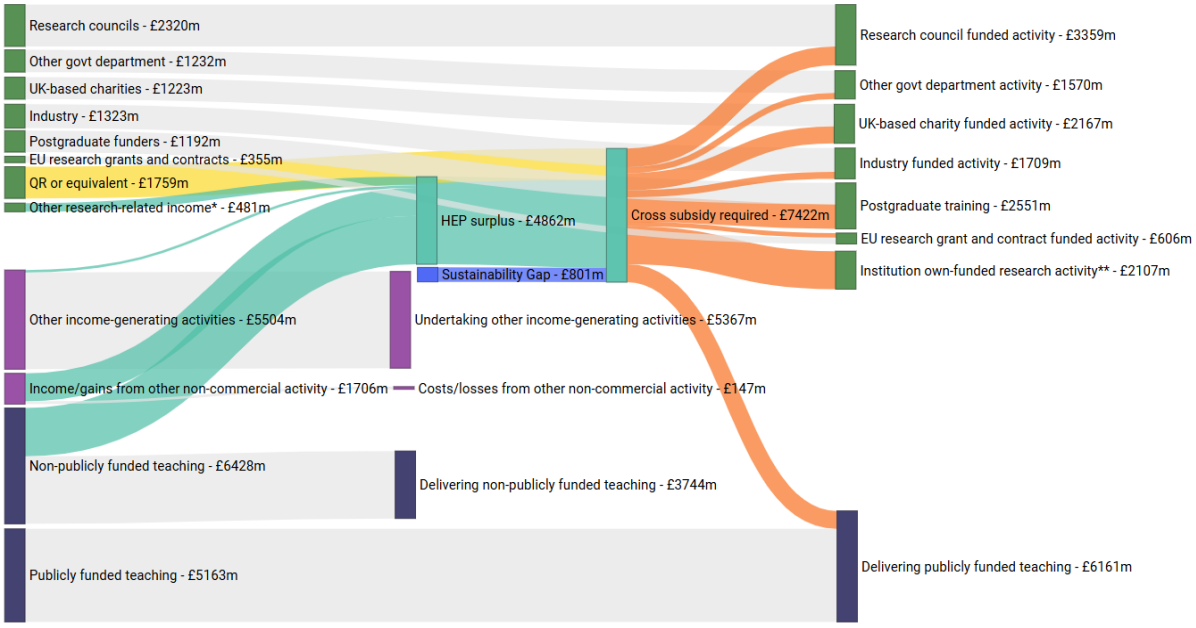

Figure: Sankey diagram for TRAC group A universities. Source: 2023-24 TRAC data for 32 TRAC A UK universities.

- TRAC group A universities (research intensive institutions) receive 80% of total research income across the sector, and 82% of Research Council funding.
- They receive a significant proportion (23.5%) of their research income through competitive project grants from Research Councils.
- They receive a higher proportion of income from non-publicly funded teaching (22.4%) than other TRAC groups, which is surplus generating.
- The amount of cross subsidy covered by HEP surplus generating activities was £4,862m.
- The sustainability gap has decreased to £801m in academic year 2023-24 from £1,409m in 2022-23.
- Income from other non-commercial activity was £1,706m (an increase with respect to AY 2022-23).

Sankey diagram of funding flows in TRAC group B universities (AY 2023-24)

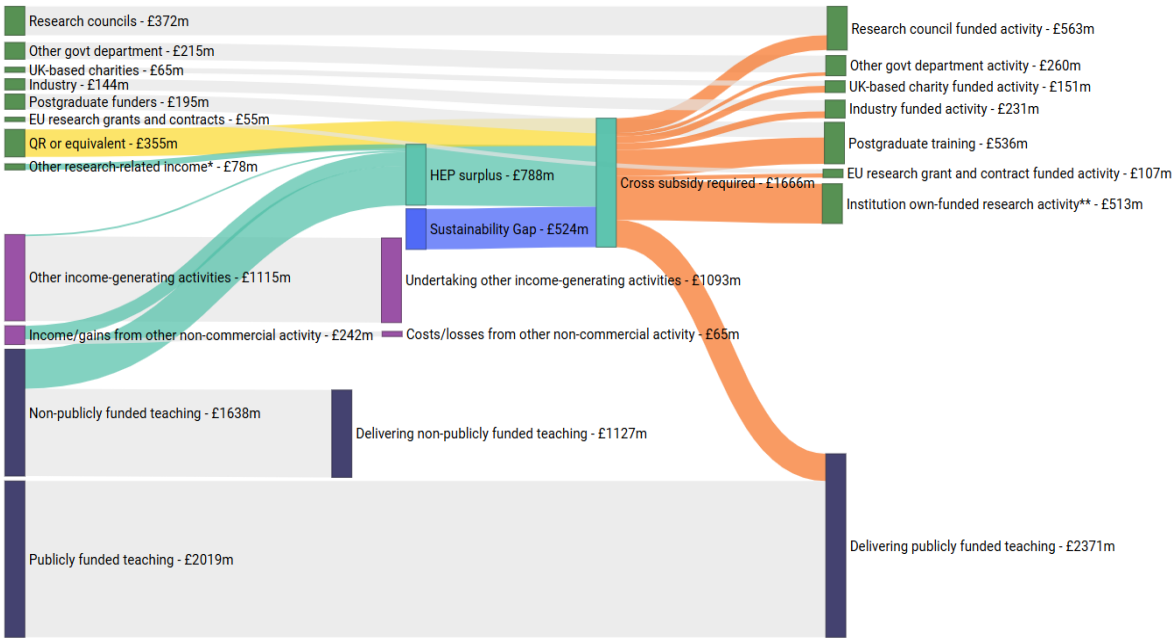

Figure: Sankey diagram for TRAC group B universities. Source: 2023-24 TRAC data for 23 TRAC B UK universities.

- TRAC group B universities receive 12% of total research income across the sector.
- Research intensive institutions in TRAC group B receive a significant proportion (25.1%) of their research income through competitive project grants from Research Councils.
- TRAC group B universities also generate significant income surplus from delivering non-publicly funded teaching.
- Compared to TRAC group A, TRAC group B universities received a larger proportion of income from publicly funded teaching (31% compared with 18% for TRAC group A).
- The sustainability gap is £524m. The sustainability gap decreased across all TRAC groups apart from TRAC group B universities which showed a modest increase.

Sankey diagram of funding flows in TRAC group C universities (AY 2023-24)

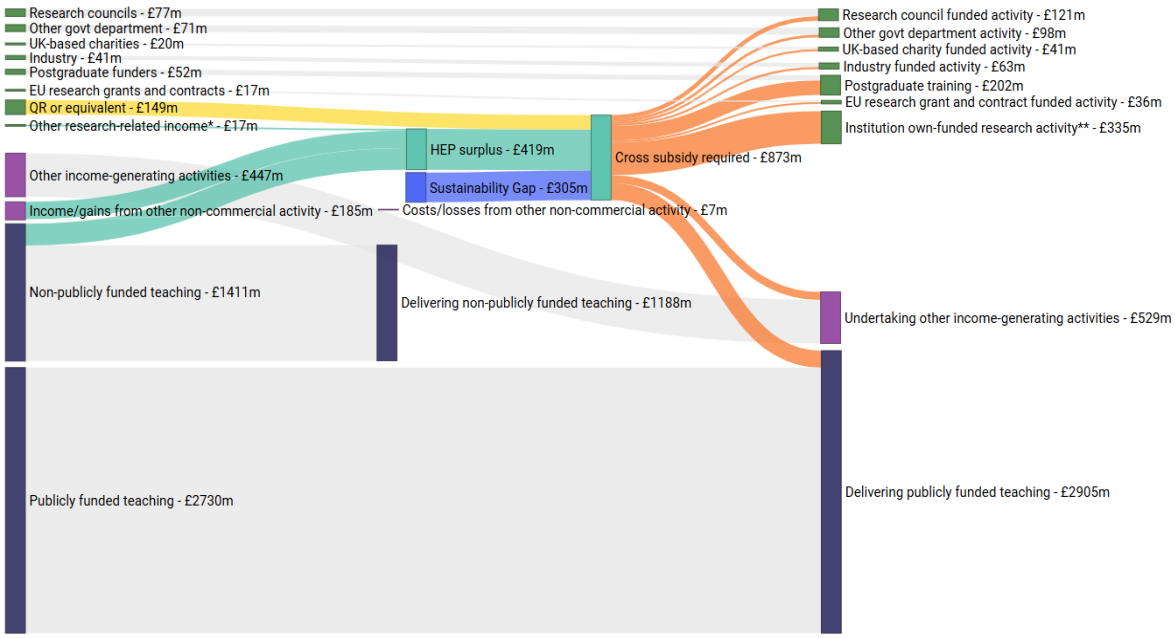

Figure: Sankey diagram for TRAC group C universities. Source: 2023-24 TRAC data for 20 TRAC C UK universities.

- TRAC group C universities receive 3.6% of total research income across the sector.
- TRAC group C universities are more focused on teaching activities than TRAC groups A and B, with 79% of income for teaching activities.
- The sustainability gap is £305m.
- The amount of HEP surplus generated for cross subsidy increased by 53% with respect to AY 2022-23.
- TRAC group C is the only TRAC group which saw a decrease in income from non-publicly funded teaching (down £55m from AY 2022-23).

Sankey diagram of funding flows in TRAC group D universities (AY 2023-24)

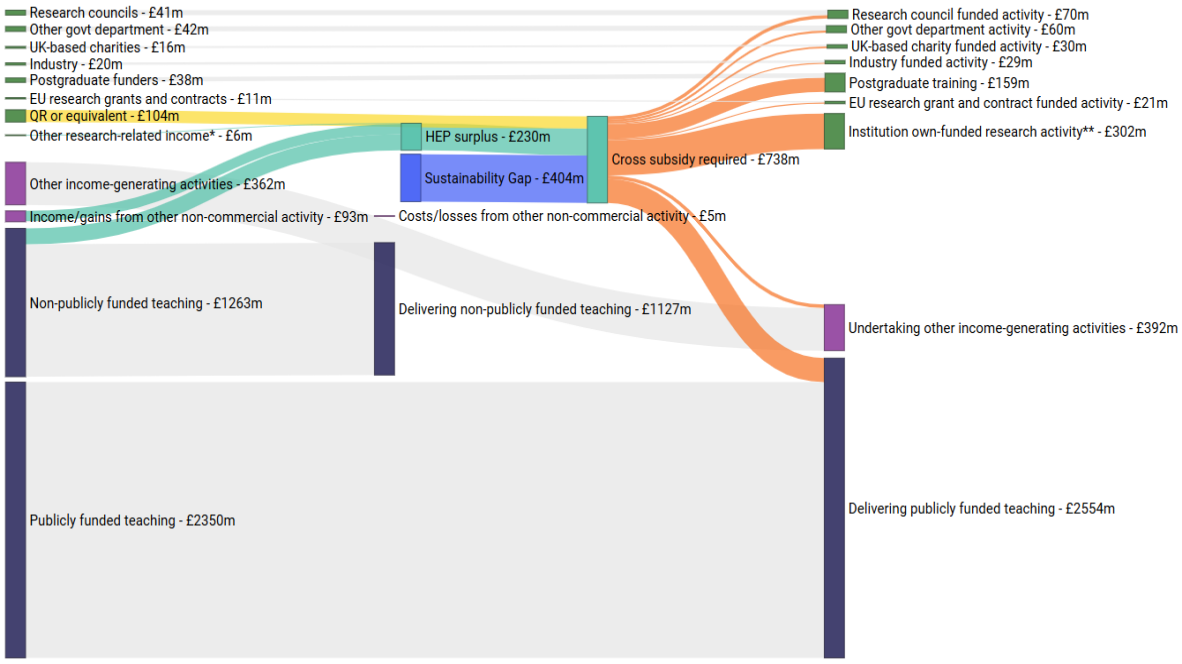

Figure: Sankey diagram for TRAC group D universities. Source: 2023-24 TRAC data for 14 TRAC D universities.

- TRAC group D universities receive 2.2% of total research income across the sector.
- TRAC group D universities are more focused on teaching activities than TRAC groups A, B and C, with 83% of income for teaching activities.
- The sustainability gap is £404m.
- TRAC group D universities receive 37.5% of research income from QR funding.

Sankey diagram of funding flows in TRAC group E universities (AY 2023-24)

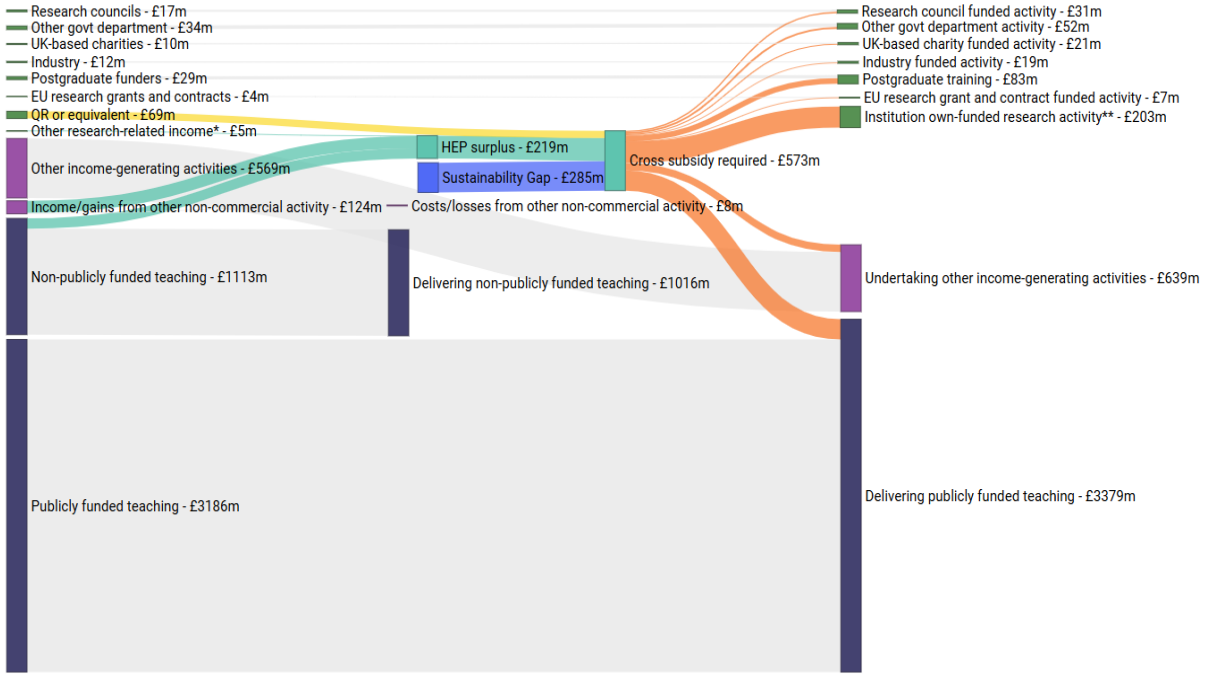

Figure: Sankey diagram for TRAC group E universities. Source: 2023-24 TRAC data for 40 TRAC E UK universities.

- TRAC group E universities receive 1.5% of total research income across the sector.
- TRAC group E universities are less research intensive with less than 4% of income generated for research activities.
- TRAC group E universities on aggregate receive the majority of their income from publicly funded teaching (61.6%).
- The sustainability gap is £285m.
- Publicly funded teaching tends to make up a higher proportion of teaching income for less research-intensive universities - for example 74% in TRAC group E, compared with 45% for TRAC group A.
- QR represents a higher proportion of research income for TRAC group E universities (38.5%) than other TRAC groups.

Sankey diagram of funding flows in TRAC group F universities (AY 2023-24)

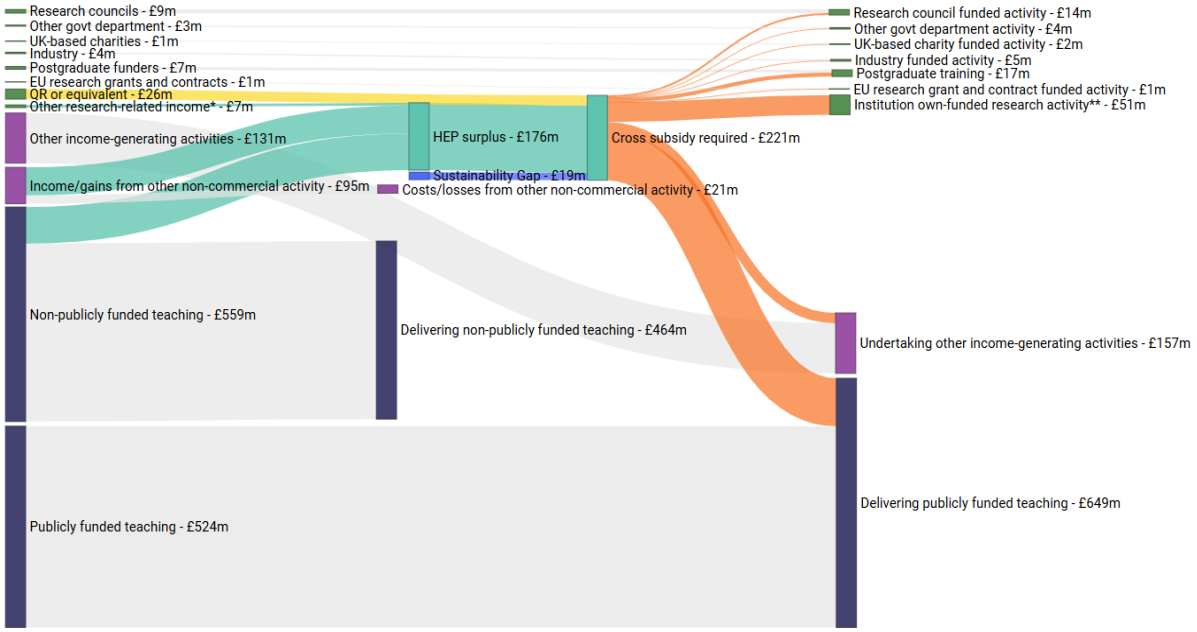

Figure: Sankey diagram for TRAC group F universities. Source: 2023-24 TRAC data for 21 TRAC F UK universities.

- TRAC group F universities receive 0.47% of total research income across the sector.
- They typically have more income generated from teaching activities as opposed to research compared with other TRAC groups.
- On aggregate they receive less total income than the other TRAC groups - £1,367m compared with £28,687m for TRAC group A.
- TRAC group F universities saw an increase in income generated from non-publicly funded teaching (£559m compared with £271m in AY 2022-23).
- The sustainability gap is £19m.

TRAC Peer group definitions

- Peer group A: Institutions with a medical school and research income* of 20% or more of total income
- Peer group B: All other institutions with research income* of 15% or more of total income
- Peer group C: Institutions with a research income* of between 5% and 15% of total income
- Peer group D: Institutions with a research income* less than 5% of total income and total income greater than £150M

- Peer group E: Institutions with a research income* less than 5% of total income and total income less than or equal to £150M
- Peer group F: Specialist music/arts teaching institutions (1)

Other notes on the data

- The data used to generate the diagrams in this publication is based upon those institutions whose TRAC returns are included in the Office for Students Annual TRAC 2023-24 publication. Similarly, our previously published diagrams use the data included in those years' OfS TRAC publications. As there are small differences in the institutions whose data is used each year, care should be taken when making comparisons between years.
- Where comparisons with previous years are made constant prices are used (March 2025 GDP deflators, FY 2023-24 prices).
- Note that the year-on-year comparisons in this publication differ from those in the OfS TRAC publication, which compares data across years using only institutions that appear in both years. In contrast, our comparisons use the full set of institutions included in each year's publication, which can vary slightly from year to year.

(1) TRAC F includes specialist music and arts colleges. This makes comparisons and interpretations slightly difficult as there are a wide range of institutions which have different research and teaching models.

* Research income is defined as the funding council recurrent research grant funding (e.g., QR or equivalent) plus the total research grants and contracts returned in the 2023-24 HESA Finance Record.