

# Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF)

---

Report to the Secretary of State for Education

August 2019





© Crown copyright 2021

This publication (not including logos) is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

To view this licence:

visit [www.nationalarchives.gov.uk/doc/open-government-licence/version/3](http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3)

email [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk)

write to Information Policy Team, The National Archives, Kew, London, TW9 4DU

About this publication:

enquiries [www.education.gov.uk/contactus](http://www.education.gov.uk/contactus)

download [www.gov.uk/government/publications](http://www.gov.uk/government/publications)

CCS1019337232-001 01/21

ISBN 978-1-5286-2288-2

Designed by design102

# Contents

<b>Foreword by Dame Shirley Pearce DBE</b>	<b>4</b>
<b>Acknowledgements</b>	<b>6</b>
<b>One-page summary</b>	<b>7</b>
<b>Executive summary</b>	<b>8</b>
<b>Acronyms</b>	<b>15</b>
<hr/>	
<b>Chapter 1: About this review</b>	<b>16</b>
<b>Chapter 2: Purpose</b>	<b>22</b>
<b>Chapter 3: Principles</b>	<b>28</b>
<b>Chapter 4: The assessment process</b>	<b>32</b>
<b>Chapter 5: Developing the framework</b>	<b>50</b>
<b>Chapter 6: The rating system</b>	<b>62</b>
<b>Chapter 7: The name of the scheme</b>	<b>68</b>
<b>Chapter 8: Is it fair?</b>	<b>70</b>
<b>Chapter 9: Is it worth it?</b>	<b>74</b>
<hr/>	
<b>Appendices and supporting research reports</b>	<b>86</b>
<b>Appendix A: Current TEF assessment process</b>	<b>87</b>
<b>Appendix B: Charts showing the distribution of LEO salary metric flags by provider region</b>	<b>89</b>
<b>Appendix C: Response to the ONS report</b>	<b>93</b>
<b>Appendix D: Graduate Outcomes survey content and structure</b>	<b>100</b>
<b>Appendix E: Comparison of TEF and proposed EdEF</b>	<b>102</b>
<b>Appendix F: Further suggestions</b>	<b>104</b>
<b>Appendix G: Glossary</b>	<b>108</b>



## Foreword by Dame Shirley Pearce DBE

UK higher education (HE) has a justifiable reputation for international excellence. Our graduates have a profound impact on the economic, cultural and social wellbeing of communities across the world in which they live and work. In introducing TEF, the UK is leading the way internationally in demonstrating a commitment to recognising excellence and promoting enhancement of the educational experience and outcomes for HE students.

TEF is still at a relatively early stage of development. This review, required by the Higher Education and Research Act 2017 (HERA), is an opportunity to assess its impact from an independent perspective at a critical stage in its development. TEF has already become an established part of the scrutiny of HE providers. Its success to date owes a great deal to the leadership provided by Professor Sir Chris Husbands, Vice-Chancellor of Sheffield Hallam University, and Professor Janice Kay CBE, Provost and Senior Deputy Vice-Chancellor at the University of Exeter, who have chaired the TEF and the subject pilots respectively. It is also due to the time and commitment of academics and students who have acted as panel members and to the care of those in the Office for Students (OfS) and the Department for Education (DfE) who have overseen its development. As with all new initiatives it has been modified in light of the challenges of delivery. This review identifies the outstanding challenges that must be addressed for it to become the widely respected and robust framework that our students deserve.

It has been both a privilege and a significant responsibility to conduct this review of the TEF. In fulfilling my role as Independent Reviewer, I have much appreciated the support of my advisory group, drawn from experts who understand the diversity of UK HE and who have provided invaluable advice and challenge at all stages of the review. While this review is in my name and I take responsibility for it in my appointed role under the Act, in recognition of my close working relationship with my advisory group, I refer to 'we' throughout the report to reflect the contribution that all have made to the recommendations in this publication of our findings.

I have also had the benefit of the highest quality administrative support from Sam Meakin, who was seconded formally from the DfE to lead the review secretariat. Throughout the review I have taken the need for independence from both the DfE and the OfS extremely seriously and have commissioned independent research for some of the key questions. I am grateful to both organisations for respecting this independence while providing information and administrative support where needed. I have also wanted to ensure that the review is informed by the views of those with a direct interest in TEF. To achieve this, I have listened to providers of HE from all parts of the sector including senior leaders, administrators and academics; current and recent undergraduate students; HE applicants and their advisors; employers; and a range of sector representative bodies.

I also recognise the need to be objective and avoid the influence of those with interests in any one part of the sector. The diversity of provision of HE in the UK is one of its great strengths. Its diversity enables UK HE to deliver different patterns of social and economic impact and provides real choices for applicants as to how, where, and to what aim, they study. This range of provision gives rise to different views about how excellence should be articulated and assessed. Over the last six months I have heard starkly opposing views about TEF presented with equally strong passion. In conducting the review, I have held this diversity, and the need to take a balanced view of the sector as a whole, firmly in my mind.

This review identifies strengths and risks in the current TEF. We aim to make recommendations which build on the strengths and propose areas for improvement to address the risks. The recommendations we make will improve the relevance, transparency and robustness of the framework and enable a revised TEF to become a respected part of the regulatory landscape for HE across the UK.

A handwritten signature in black ink that reads "Shirley Pearce". The signature is written in a cursive style with a long horizontal line extending from the end of the name.

**Dame Shirley Pearce**

# Acknowledgements

## Advisory group

This review has benefited greatly from the advice of nine advisory group members, each of whom brought specific expertise that was invaluable to the review. Each member made a significant time commitment and contribution, enabling the review to bring together different perspectives and understand the diversity of the HE sector and the wide range of stakeholders impacted by developments in the TEF.

Advisory group members and their role at the time the group was established:

- **Professor Morag Bell**, Emeritus Professor and former Pro Vice-Chancellor for Teaching, Loughborough University
- **Professor Amanda Chetwynd**, Provost (Student Experience, Colleges, Library), Lancaster University and a main panel member in the subject-level TEF pilots
- **Mr Amatey Doku**, Vice President for Higher Education, National Union of Students (NUS)
- **Professor Jonathan Forster**, Head of Mathematical Sciences, University of Southampton and subsequently Head of Department of Statistics, University of Warwick, former member of Council of the Royal Statistical Society (RSS)
- **Ms Maggie Galliers CBE**, Chair of the Learning and Work Institute Company Board, Council member for Open University and former Principal of Leicester College
- **Mr Stephen Isherwood**, Chief Executive, Institute of Student Employers
- **Dr Jonathan Nicholls**, Secretary, Open University
- **Ms Helen Parker**, Non-Executive Director on the board of the Financial Services Compensation Scheme, a committee member for Healthwatch England and former Deputy Chief Executive of Which?
- **Professor Anna Vignoles CBE**, Professor of Education, University of Cambridge

For more detail, please see the advisory group biographies.

## Administrative support

The review is grateful for the administrative support provided by the team of civil servants in the DfE and the policy advisors from the DfE and the OfS who were seconded to the review. Their professionalism and the working practices we adopted throughout the review enabled the review to operate effectively while maintaining firm independence.

# One-page summary

## Overview of the recommendations: a shorthand version

<b>Purpose</b>	1. <b>A primary purpose:</b> The student interest is best met if the core purpose is to identify excellence and encourage enhancement.
<b>Principles</b>	2. <b>Overarching principles:</b> Transparent, Relevant, Robust.
<b>Assessment process</b>	3. <b>Statistical improvements</b> are needed to address process concerns. 4. <b>A subject-level exercise</b> should be incorporated into the provider-level assessment and inform provider-level ratings.
<b>Developing the framework</b>	5. <b>The structure of the framework</b> needs to change to improve transparency, relevance and robustness. The review proposes a framework with four aspects of assessment. 6. <b>Educational gains</b> should be articulated and assessed. 7. <b>Graduate outcome metrics</b> should be (a) broader and (b) control for region of employment. 8. <b>The submission process</b> should (a) have a standard structure and (b) enable the student body to contribute independently.
<b>Rating system</b>	9. <b>The rating system</b> should (a) rate each aspect in addition to an overall provider rating and (b) have four levels of rating with new names.
<b>Name of the scheme</b>	10. <b>The name of the framework</b> should more accurately reflect what is measured and evaluated. The review proposes the 'Educational Excellence Framework'.

## The proposed Educational Excellence Framework: a visual guide

How the recommendations and proposals could be brought together

Dimensions	Educational Experience		Educational Outcomes	
	Teaching and Learning Environment	Student Satisfaction	Educational Gains	Graduate Outcomes
<b>Evidence</b> <b>Nationally comparable metrics</b> (provider and subject level)		<b>Metrics and splits for</b> Student satisfaction measures (NSS)		<b>Metrics and splits for:</b> Employment or further study and salary measures (GO, LEO) Continuation (HESA) Differential degree attainment (HESA/ILR)
<b>Provider submission</b>	Institutionally determined evidence, including addressing subject variability	Response to metrics, including subject variability, and institutionally determined evidence	Institutionally determined evidence, including addressing subject variability	Response to metrics, including subject variability, and institutionally determined evidence
<b>Student submission</b>	Student evidence, including addressing subject variability	Student evidence, including addressing subject variability	Student evidence, including addressing subject variability	Student evidence, including addressing subject variability
<b>Judgements</b>	<b>Rating names: Meets UK quality requirements, Commended, Highly Commended, Outstanding</b>			
Aspect ratings	<b>Rating</b>	<b>Rating</b>	<b>Rating</b>	<b>Rating</b>
Overall rating	<b>Overall provider rating</b>			
Statement of findings	Statement from the assessment panel, giving reasons for its aspects rating and overall rating, including reference to any limiting factors applied (e.g. subject variability not sufficiently addressed)			

# Executive summary

This executive summary provides only a brief outline of the review and is necessarily high level. It should be considered alongside the body of the report, which sets out the complexity of the arguments and richness of the data and evidence underlying each recommendation.

## Chapter 1: About this review

This independent review of the Teaching Excellence and Student Outcomes Framework (TEF) was undertaken by Dame Shirley Pearce with the support of her advisory group. The review undertook work across seven different work streams, many of which included independent commissions. See Chapter 1 for more detail.

While TEF is a relatively new initiative, significant progress has been made in its development and delivery to date. It has been thoughtfully adapted and improved over the last three years. This review comes at a critical stage in its development, with the plan to move to subject-level ratings and from 2020, the incorporation of TEF into the regulatory framework in England as a condition of registration for providers with more than 500 undergraduate students.

## Chapter 2: Purpose

While TEF results should always be in the public domain and contribute to the broad base of information available to inform applicants' choices, the student interest is best met by using TEF to identify excellence and enhance the educational experience and outcomes that students receive.

## Chapter 3: Principles

To improve confidence in the framework and maximise its impact, TEF should be:

- **Transparent:** All elements of the framework, and any changes to it, should be clear to all involved and the framework should be communicated widely.
- **Relevant:** The design should be directly relevant to, and informed by, its primary purpose and the process should have relevance for all HE provision.
- **Robust:** The process and its outcomes should be statistically and operationally robust, meaning they should demonstrate reliability and validity.

## Chapter 4: The assessment process

We listened to views about the strengths and weaknesses of the TEF process at both provider and subject level. We identify:

- *concerns* with:
  - the way data is used and analysed
  - the fairness of the process for an increasingly diverse sector
  - the level of involvement of students

- unintended consequences of subject categorisation
- unresolved issues with missing data and small numbers
- challenges of scalability of subject-level TEF
- *strengths* in:
  - the use of peer review
  - the provision of benchmarked subject-level data for institutions
  - the potential benefit of subject ratings to students

We make recommendations which aim to improve the robustness of the process and analysis of the data by building on the strengths of TEF while accommodating the diversity of the sector. We make recommendations for changes to the process, the statistical analysis and the subject-level exercise.

## The process

The process should deliver the principles of transparency, relevance and robustness. It should be clear about what the metrics actually measure, should control for external variables, improve the balance between national and institutional evidence and allow greater input from students. To deliver this, there will need to be adjustments to both the process and the structure of the framework, for which proposals are presented in Chapter 5.

## The statistical analysis

Improvements are needed in the management and communication of:

- statistical uncertainty at all levels of the process, including multiple comparisons
- small numbers (small providers and/or small datasets) and non-reportable metrics
- relative versus absolute comparisons

These have a significant impact on flagging and generating the initial hypothesis.

Appendix B sets out the essential ONS recommendations that address these concerns.

## The subject-level exercise

The process and statistical risks become exacerbated at subject level where the impact of problems due to small numbers becomes greater. This, in addition to the problems with subject categorisation and risks of inconsistencies at scale, mean that ratings at subject level risk undermining the successful development of TEF as a whole.

There is evidence however, that a subject-level exercise has value for driving internal enhancement. For this reason, we recommend that while TEF should not progress to ratings at subject level at this stage, **a subject-level exercise should be incorporated into the provider-level assessment and inform provider-level ratings.**

Work is needed to develop the most effective way to do this. We propose that all providers receive a full set of subject-level metrics and that failure to sufficiently address variability in subject performance should act as a limiting factor on ratings of the aspects of assessment and the overall provider rating.

## Chapter 5: Developing the framework

We have proposed adjustments to the framework structure (see Table 2) to improve transparency and relevance, and compared this to the existing TEF (see Figure 8). The proposed framework enables providers to demonstrate the efficacy of their enhancement strategy and actions. It will allow assessors to examine how well this is being delivered. The framework would retain nationally comparable metrics in two of the following four aspects of assessment:

### 1. Teaching and Learning Environment

Institutionally determined evidence addressing ‘how we create an excellent environment for teaching and learning and how we know we are doing this well’. Subject variability in teaching and learning environments should be addressed.

### 2. Student Satisfaction

Evidence to address ‘what our students think of our educational provision’. National comparisons should use National Student Survey (NSS) metrics. In the submission, institutions should address their performance in the NSS metrics and may also add their own data. Subject variability in satisfaction should be addressed.

### 3. Educational Gains

Institutionally determined evidence addressing ‘what our students gain from our educational experience and how we evidence that’. Educational gains might include knowledge, skills, experience, work readiness, personal development and resilience. This will be conceptualised differently in different institutions. Since there is no single nationally comparable metric of ‘learning gain’, each provider would be expected to demonstrate how, within their own particular mission, they articulate and measure (quantify if possible) the educational gains that they aim to provide for their students. Subject variability in those gains should also be addressed.

### 4. Graduate Outcomes

Evidence to address ‘what our students do as graduates and how we have supported these outcomes’. In addition to the existing TEF employment metrics, measures beyond employment should be used and regional differences in labour markets should be controlled for. Continuation and differential degree attainment should also be part of this aspect. Institutions would use their submission to respond to the metrics and add their own data. Subject variability in graduate outcomes should also be addressed.

For the submission, a standard structure should be developed which incorporates a subject level exercise. The student body should also be given the opportunity to provide direct input in an independent structured submission.

## Chapter 6: The rating system

Greater granularity in the rating system would provide more information about excellence and reflect the complexity of educational provision. We therefore recommend providers are awarded both an **institutional rating**, and a **rating for each of the four proposed aspects**.

We also recommend that the names of the ratings should reflect the level of excellence identified. We propose the following names:

- **Meets UK Quality Requirements**
- **Commended**
- **Highly Commended**
- **Outstanding**

## **Chapter 7: The name of the scheme**

We heard much frustration that the name ‘Teaching Excellence and Student Outcomes Framework’ does not adequately reflect what the TEF really measures. Teaching is only assessed via proxies and the student learning experience is dependent on more than just teaching. We recommend that the name should reflect more accurately what a revised TEF will measure and assess. Of the options we have considered, we propose the Educational Excellence Framework (EdEF).

## **Chapter 8: Is it fair?**

We have chosen to consider the ‘any other matters’ component of the terms of reference in terms of whether TEF delivers effectively for everyone across our diverse HE sector. We heard concerns about several areas of perceived disadvantage and have considered these in developing our recommendations. While this review is not able to fully address all of these, we believe our recommendations will make a positive difference.

## **Chapter 9: Is it worth it?**

Given the value of HE to the UK, we believe it is firmly in the public and student interest for TEF to have, as its primary purpose, the identification of excellence across all HE and to encourage enhancement of that provision.

### **Balancing the costs and benefits of TEF**

At subject level, we have identified concerns with: the impact of small datasets, retaining consistency at scale, limitations of the subject categorisation and the higher burden to the regulator as well as providers. If subject-level TEF was robust and the risks could be addressed, it would have benefits in supporting internal enhancement and providing information for students. However, our judgement is that currently, the risks of proceeding with subject-level ratings cannot easily be mitigated and they outweigh the benefits at this point in the development of TEF. We judge it to be in the public interest to have a subject-level exercise as part of the provider level assessment and ratings, but not to move, at this stage, to ratings at subject level.

At provider level, with a strong focus on subject variation, we believe the public interest case is strong. We recognise that the quantified costs are material (at £65 to £75 million over 10 years) and that there are some unintended consequences related to reputation, teaching morale, reduced collaboration and risk to innovation. However, when compared to the investment being made in HE by both students and taxpayers, we think the costs of TEF are proportionate and justified by the potential benefits of enhancing educational provision for undergraduate students.

Improvements in the methodology must be made to deliver those benefits. The recommendations in this review aim to improve the reliability and validity of the process, reduce some of the unintended consequences and deliver a framework that is more squarely in the public interest.

## Summary of the recommendations

### Purpose

1. The student interest is best met by TEF having the **primary purpose** of identifying excellence and encouraging enhancement of the educational experience and outcomes for HE students in the UK.

### Principles

2. To improve confidence and respect in the framework, **three overarching principles** should guide the development and delivery of a revised TEF. These principles should be used to inform periodic review of the framework. All elements of a revised TEF should be:
  - a. **Transparent** (clear to all and widely understood)
  - b. **Relevant** (to the purpose and to all provision)
  - c. **Robust** (both statistically and operationally)

### The assessment process

3. **Statistical improvements** are needed to address concerns in the management and communication of:
  - a. statistical uncertainty at all levels of the process, including multiple comparisons
  - b. small numbers (small providers and/or small datasets) and non-reportable metrics
  - c. relative versus absolute comparisons

These issues are of particular importance to the design of any statistical processes that may guide TEF judgements, such as flagging and initial hypotheses.

4. **A subject-level exercise** should be developed for inclusion in the provider-level assessment to inform **ratings at provider rather than subject level**.

### Developing the framework

5. **The structure of the framework** should be adjusted to improve:
  - a. transparency about what is being measured
  - b. its relevance to all institutions
  - c. the balance between nationally comparable and institutionally determined evidence

We have proposed adjustments to the existing framework structure in Table 2. To incorporate the subject-level exercise (Recommendation 4) into the proposed framework, we also propose that variability in subject performance should be addressed under all four aspects.

A summary of the proposed framework is:

Dimensions	Aspects	Evidence
Educational Experience	Teaching and Learning Environment	Institutionally determined evidence
	Student Satisfaction	Nationally comparable metrics and institutionally determined evidence
Educational Outcomes	Educational Gains	Institutionally determined evidence
	Graduate Outcomes	Nationally comparable metrics and institutionally determined evidence

6. Each institution should be expected to demonstrate how, within their own particular mission, they **articulate and measure the educational outcomes and learning that they aim to provide for their students**. In our proposed framework structure, we have incorporated this by having 'Educational Gains' as one of the four aspects of assessment.
7. In assessing graduate outcomes:
  - a. Nationally comparable metrics should not be restricted to employment and earnings. Broader outcome metrics should be developed and use made of other questions in the Graduate Outcomes survey.
  - b. Metrics used to assess employment and earnings should control for regional differences in the location of graduates' employment. Location of employment should be used as a benchmarking factor or in creating the metric.
8. **The submission process** should:
  - a. have a standard structure for submissions that is used by all institutions
  - b. enable the student body to contribute their own written input that reflects their view of the institution's performance in all aspects of the revised framework, through an independent structured submission

### Rating system

9. **The rating system** should be improved by:
  - a. Providing greater and more nuanced information. We propose that the overall provider rating is supported by ratings for each of the four aspects being assessed under the proposed framework.
  - b. Using rating names that make clear that the awards demonstrate excellence that meets or exceeds the UK quality baseline. We propose the names Gold, Silver and Bronze be replaced with 'Outstanding', 'Highly Commended', 'Commended' and 'Meets UK Quality Requirements'.

### Name of the scheme

10. **The name of the scheme** should be changed to more accurately reflect what is being measured and assessed. We propose the Educational Excellence Framework (EdEF).

## The proposed Educational Excellence Framework

The diagram of the proposed framework shown at the start of this report demonstrates how we envisage the framework if all of the recommendations are implemented and the proposed framework structure is adopted. We are very aware that in the short period of this review we were not able to fully test our emerging ideas. Our proposals for a revised framework structure will need to be subjected to proper testing. The diagram should not be seen as a detailed design, but rather a visual guide and direction for how the various recommendations and proposals set out in this review could be brought together.

# Acronyms

<b>AP</b>	Alternative provider
<b>CAH</b>	Common Aggregation Hierarchy
<b>DfE</b>	Department for Education
<b>DLHE</b>	Destination of Leavers in Higher Education (survey)
<b>EdEF</b>	Education Excellence Framework
<b>FE</b>	Further education
<b>FEC</b>	Further education college
<b>GDP</b>	Gross domestic product
<b>GO</b>	Graduate Outcomes (survey)
<b>HE</b>	Higher education
<b>HECoS</b>	The Higher Education Classification of Subjects
<b>HEI</b>	Higher education institution
<b>HERA</b>	The Higher Education and Research Act 2017
<b>IAG</b>	Information, advice and guidance
<b>JACS</b>	The Joint Academic Coding System
<b>KEF</b>	Knowledge Exchange Framework
<b>LEO</b>	Longitudinal education outcomes
<b>NHS</b>	National Health Service
<b>NSS</b>	National Student Survey
<b>OfS</b>	Office for Students
<b>ONS</b>	Office for National Statistics
<b>PVC</b>	Pro Vice-Chancellor
<b>REF</b>	Research Excellence Framework
<b>RSS</b>	Royal Statistical Society
<b>SOC</b>	Standard Occupational Classification
<b>TEF</b>	Teaching Excellence and Student Outcomes Framework
<b>TRAC</b>	Transparent Approach to Costing
<b>UCAS</b>	Universities and Colleges Admissions Service
<b>UUK</b>	Universities UK

---

# Chapter 1: About this review



## What was asked of the review

The government committed to this independent review during the passage of HERA ('the Act'). The Act includes a specific section (section 26) about the independent review, covering both the appointment of an independent person to carry out the review and the terms of reference.

### Appointment of the Independent Reviewer

The Secretary of State for Education appointed Dame Shirley Pearce to carry out an independent review of the TEF. As required by the Act, Shirley was chosen because the Secretary of State for Education assessed that she commanded the confidence of registered HE providers.

At the time of appointment, Shirley was Chair of Court and Council at the London School of Economics and Political Science (LSE),<sup>1</sup> a member of the Higher Education Quality Assurance Panel for the Ministry of Education in Singapore, and a Member of the Committee on Standards in Public Life. She was formerly Vice-Chancellor of Loughborough University, a trustee and Council member at the University of Cambridge, and the inaugural Chair of the College of Policing. For more detail, please see Dame Shirley's biography.

### Terms of reference

The review's remit is set out in section 26 of the Act. The terms of reference for the review reflect this remit and state that the review needs to report on the following:

1. The process by which ratings are determined under the scheme [for assessing quality in HE] and the sources of statistical information used in that process.
2. Whether that process, and those sources of statistical information, are fit for use for the purpose of determining ratings under the scheme.
3. The names of the ratings under the scheme and whether those names are appropriate.
4. The impact of the scheme on the ability of HE providers to which the scheme applies to carry out their functions (including in particular, their functions relating to teaching and research).
5. An assessment of whether the scheme is in the public interest.
6. Any other matters that the appointed person considers relevant.

For more detail, please see the full TEF Independent Review terms of reference.

### What is 'the scheme' being reviewed?

The TEF is the scheme that was adopted by the OfS in January 2018, under section 25 of the Act, to give ratings to the quality of, and the standards applied to, higher education (HE). TEF has been voluntary for all UK providers, but from 2020, in England, it will be an ongoing condition of registration that English providers with more than 500 undergraduate students apply to the TEF. Providers in Scotland, Wales and Northern Ireland can also apply with the consent of the relevant devolved administration.

The TEF is intended to assess excellence in undergraduate provision by considering how well HE providers ensure excellent teaching and outcomes for their students in terms of graduate-level employment or further study. Providers are given one of three ratings – Gold, Silver or Bronze – or a Provisional award if they do not yet have sufficient data to be fully assessed.

TEF is currently being delivered at provider level, meaning ratings are awarded to the institution as a whole. In the government's subject-level TEF consultation response in October 2018, they set out their intention to move to full implementation of subject-level TEF from academic year 2019–20, whereby each institution would, in addition to their institutional rating, be awarded ratings for their provision in each of the 35 subject categories in Level 2 of the Common Aggregation Hierarchy (CAH2).<sup>2</sup> The assessment process for subject-level TEF has been piloted for two years in 2017–18 and 2018–19. Both provider-level and subject-level TEF have been considered for the purpose of this review.

## What was done

### Who was involved

Dame Shirley Pearce has undertaken this review in her appointed role as the TEF Independent Reviewer. To support her in that role, she established an advisory group comprising nine experts. This advisory group met periodically and each member of the group offered advice and guidance on their areas of expertise throughout the review.

The review was also supported by policy advisors seconded from the DfE and the OfS and administrative support was provided by a team of civil servants at the DfE.

The review commenced with the launch of its call for views on 18 January 2019 and reported to the Secretary of State for Education in late August 2019.

### Workstreams and independent commissions

To address the terms of reference and develop a comprehensive evidence base, the review undertook work across seven key workstreams. To maximise independence of the analysis of findings, some of these workstreams involved independent commissions.

- **Call for views** – We ran a public consultation to gather a wide range of views from across the HE sector and beyond (for more information on this consultation, please see the online [call for views page](#)). The responses were analysed by an independent organisation, York Consulting. Their report can be found at [Government Consultations Independent review of TEF: call for views](#).
- **Listening sessions** – We ran a series of over 60 listening sessions with a wide range of stakeholders from January to April. These meetings gave us the opportunity to explore the views of those on which the TEF has the most impact. An overview of the key tensions discussed during these sessions is outlined below. These tensions were used as a starting point, but all stakeholders were also encouraged to raise any topic or issue with TEF they felt it was important for the review to hear. The consistent themes and messages we heard during these sessions have been summarised in a paper at [An overview of the listening sessions informing the TEF Review](#).

Following these sessions, we also ran a workshop session with Advance HE's Pro Vice-Chancellors, Vice-Principals and Deputy Vice-Chancellors (PVC) Network to explore some of the emerging themes that we had heard.

- **Statistical evaluation** – We commissioned the Office for National Statistics (ONS) to produce an independent expert view of the statistical information used in the TEF. This covered a range of statistical topics identified by the review team, such as the:
  - use of metrics in the assessment process
  - role of the split metrics
  - number of metrics and their weighting
  - use of and method for identifying flags
  - treatment of very high and very low absolute values
  - data sources used to generate the metrics
  - ‘initial hypothesis’
  - presentation and transparency of the statistical information and process

A full outline of the scope of this commission is included in their report. This work was overseen by members of the advisory group with particular expertise in statistics. The ONS report can be found at [Evaluation of the statistical elements of the Teaching Excellence and Student Outcomes Framework](#). A report by the Methodology Advisory Service of the Office for National Statistics.

- **Analysis of the public interest** – We:
  - carried out a desktop review of existing research looking at the costs and benefits of the TEF
  - commissioned updated quantitative cost estimates for provider-level and subject-level TEF from the DfE
  - ran a targeted seminar with relevant sector organisations and individuals to discuss the existing evidence and their views of whether TEF is in the public interest

The updated cost estimates from the DfE can be found at [Changes to the Teaching Excellence and Student Outcomes Framework – updated cost estimates and the review’s assessment of the public interest of TEF](#) can be found in Chapter 9 on ‘Is TEF worth it’.

- **International perceptions** – We asked the British Council to undertake an independent research project to examine the reputational impact of TEF and its rating names in other countries. They accessed first-hand information from their key offices abroad about how overseas organisations regard UK HE and what impact they consider TEF has had. The British Council report can be found at [International perceptions of the Teaching Excellence and Student Outcomes Framework](#). We also held eight teleconferences with international experts across the world in teaching and educational excellence. These were structured around the call for views, but specifically asked about the international perspective. The feedback from these international teleconferences is included in the listening sessions summary, at [Summary of the listening sessions for the TEF independent review](#).
- **Employers** – We carried out a range of focus group meetings and calls with employers, employer representative groups and professional bodies. These sought to explore the information sources that employers use to differentiate between HE providers, the extent to which employers find the TEF useful, what purpose they think TEF should focus on, and whether their voice is sufficiently captured in the TEF process. While it was difficult to get large numbers of employers to engage with the review, we held 10 sessions which identified some consistent messages. The feedback from these sessions is included in the listening sessions summary, at [An overview of the listening sessions informing the TEF Review](#).

- **Applicants and careers advisors** – We carried out a desktop review of existing research about the role of TEF in providing information to existing and prospective HE students. We also commissioned The Universities and Colleges Admissions Service (UCAS) to engage both applicants and careers advisors through existing and bespoke surveys and a small number of focus groups. These focused on the issues raised in the call for views that were particularly relevant to applicants and their advisors, such as how useful TEF is to them and the impact it has on student choice. An analysis of the survey data collected by UCAS, which we commissioned from the DfE, can be found at [Research to support the Independent TEF Review: Surveys of HE applicants](#) and [Research to support the Independent TEF Review: Survey of HE careers advisors](#). To supplement this, we also met with representatives from Which? and gathered views from two focus groups, one online run by the Open University and another facilitated by advisory group member Amanda Chetwynd for students at Lancaster University.

## Tensions explored

In the early listening sessions, we heard some consistent tensions in the TEF that we then used as the starting point for discussion at the remaining sessions. These reflected some of the trade-offs that currently exist in the framework. They were:



### Purpose...

Information v enhancement v anything else?



### Process...

Simplicity v accuracy and transparency

Relative v absolute

Balance of qualitative v quantitative



### Level...

Provider v subject

Value v cost/burden



### Fairness...

Diversity v consistency



### Impact...

Educational experience v research and/or knowledge transfer



### Other...?

One additional tension was identified during the sessions, which was:  
vocational v academic provision

## Panel observation and engagement

At key points throughout the review, we met with panel members from the subject-level pilot to understand views from those who have been directly involved in undertaking TEF assessments. Shirley also attended one of the subject-level pilot's panel assessment days. She attended as an observer to see how the assessment process and panel judgements are done in practice. She observed four different panel discussions (four groups of nine), each of which made rating judgements for multiple providers, giving her direct insight into the steps involved in arriving at subject-level judgements. The OfS also shared interim pilot findings with the review, including feedback from providers, student representatives and panellists.



---

## Chapter 2: Purpose



## The purpose of TEF

This review starts by looking at the purpose of the TEF. Before we can assess whether the TEF is fit for purpose, it is important to have clarity over what that purpose is.

TEF currently aims to fulfil a number of purposes. The government's TEF policy specification lists four purposes, which are to:

- better inform students' choices about what and where to study
- raise esteem for teaching
- recognise and reward excellent teaching
- better meet the needs of employers, business, industry and the professions

These can be broadly categorised as either **providing information** for applicants and employers or encouraging the **enhancement of quality** in educational provision.

## What we heard

### There was overall support for having an assessment exercise

The overall aim of assessing the quality of teaching excellence and student outcomes across providers of HE was widely supported. While many respondents to the call for views expressed concerns with certain aspects of the TEF process, three-quarters (75%) of all respondents supported the underlying aim of having an assessment of the quality of provision. Support was particularly strong from further education colleges (FECs) (100% of 17 colleges), publicly-funded HE providers (90% of 124 providers), representative organisations (84% of 19 organisations) and students (79% of 11 students and 18 student bodies). The only group that had low levels of support for the principle of assessment was academics, with only 42% of the 85 individual academics that responded being in support.<sup>3</sup>

The overall support for the aim of having an assessment of the quality of educational provision indicates that respondents perceive public value from having such an exercise. To establish clarity of purpose, we explored whether that value comes from providing information, enhancing provision, or something else.

### Enhancing provision

The message from the call for views and the listening sessions is that most respondents believe TEF has its greatest potential impact through identifying excellence and enhancing provision. We heard a consistent theme through the listening sessions that TEF should focus on enhancement of provision.<sup>4</sup> The call for views was also supportive of this notion, with about half of all respondents saying enhancement of provision is more important.<sup>5</sup> This compares to only 7% saying that providing information is more important and about a third suggesting both are equally important.<sup>6</sup>

We were given examples from all parts of the sector of how TEF has increased institutional attention on the quality of its teaching and learning. In FE, where HE provision is often a relatively small part of the overall institutional provision, it has helped raise the profile and needs of HE with senior management.<sup>7</sup> In research-intensive universities, where the Research Excellence Framework (REF) has led to a focus on the drivers of research output and performance, the TEF has helped to rebalance the importance of the educational dimension of the university's mission.<sup>8</sup>

We also heard that the presentation of subject-level data, including providing the data split by various student characteristics such as age, disability, ethnicity and gender, was already proving useful in enhancing provision. We heard from all parts of the sector that it has enabled conversations across the provider that would otherwise not have happened.<sup>9</sup> The recent evaluation of the TEF, conducted by IFF Research, concluded that TEF is already creating an incentive to enhance teaching quality and student outcomes.<sup>10</sup> The clear message from senior leaders responsible for teaching and learning is that the process of engaging with TEF has significant potential in the enhancement of provision.

Identifying excellence across all parts of the sector, for FECs, alternative providers (APs) and established universities, is also seen as important.<sup>11</sup> The benchmarked data<sup>12</sup> allows excellent educational provision to be identified in all institutions, not just those that have the benefit of international reputations and strong research track records.

## Information for applicants

The UCAS data shows that the majority of applicants are not using TEF to influence their decision-making. The latest UCAS survey found that only 22% of applicants in 2019 actively used TEF to make decisions about where to study.<sup>13</sup> Careers advisors appeared to use it more, with about 45% of careers advisors reporting they had used the TEF either 'a little', 'a moderate amount' or 'a lot' to help individual students make decisions about where to study.<sup>14</sup>

While this suggests TEF is being used by some applicants, both applicants and careers advisors said that TEF was the least important factor out of 15 different decision-making factors that students consider.<sup>15</sup> Although some of these factors are included in the criteria for TEF assessments, it may be that applicants and careers advisors do not value a single TEF rating as much as information they can assess for themselves. This view was supported by the focus groups undertaken by UCAS, which found that students and career advisors were unsure about the added value of the TEF, stating that it uses existing data and they already had access to information databases such as Unistats.<sup>16</sup> The UCAS survey of advisors also highlighted that while career advisors considered the TEF to be useful, they thought other factors could be more important.<sup>17</sup>

We note however that it is early days for TEF and the current low rate of use and importance may be a reflection of a failure to communicate TEF rather than a lack of value. Awareness of TEF is growing<sup>18</sup> and where students, particularly international students, are aware of TEF, they report taking it into account.<sup>19</sup> This suggests that the rate of use and perceived value of the TEF by applicants could change over time. Indeed, the recent IFF evaluation of the TEF concluded that increasing awareness levels, and improving understanding of TEF, are likely to increase the perceived value of TEF and its subsequent use.<sup>20</sup> However, recent research by UCAS for this review suggests that there is unlikely to be a simple relationship between awareness and perceptions of importance. UCAS found that, while applicants who had heard of the TEF and knew a lot or a fair amount about it were more likely to say that TEF was important,<sup>21</sup> when seen within the context of the 15 different decision-making factors, these more knowledgeable applicants *still* ranked TEF as the least important (15th) factor for provider-level ratings and 12th for subject-level ratings.<sup>22</sup> This reflects the complexity of decision making for applicants and appears to suggest that the most important factors cannot be reduced into a single rating.

## Information for employers

Employers are largely unaware of the TEF. We have only been able to speak to a limited sample of employers, but the message was consistent.<sup>23</sup> Even those responsible for graduate recruitment seem to know very little about TEF. While some expressed interest in parts of the underpinning data, which they felt would assist them in their social mobility agenda, they had much less interest in the overall ratings. Using TEF ratings to pursue an information agenda for employers will be very difficult and is unlikely to be where the TEF can have much impact. Pursuing the enhancement agenda with consequent improvements in the overall employability of graduates may be more in the interests of employers.

## Other purposes

The only other suggested purpose for TEF that we heard was its impact on access and participation.<sup>24</sup> The use of benchmarked data and presentation of the splits has thrown a spotlight on the variation across the sector in terms of an institution's ability to support and educate students from different socioeconomic backgrounds. While this is a benefit of TEF, the access and participation agenda is the primary function of access and participation plans, which form part of the regulatory requirements set by the OfS.

## Clarity of purpose

We sought views about which purpose of the TEF was the most important and whether TEF should focus on one primary purpose. While some felt that both information and enhancement were equally important,<sup>25</sup> the desire for greater clarity of purpose was clear from the call for views responses, as typified by this quote:

---

**“There are many purposes to which TEF could be put, but on balance we believe that it should focus on doing one thing well rather than trying to serve many different purposes (and risk being sub-optimally designed for any one of those).”**

**Publicly-funded HE provider<sup>26</sup>**

---

We also heard concern about how the purpose of TEF was perceived within the wider regulatory landscape across the UK. In particular, those we spoke to from Scotland, Wales and Northern Ireland felt that TEF does not fit well with their quality assurance systems and that communication about this fact has not been clear.<sup>27</sup>

## What we conclude and recommend

### A primary purpose that drives the framework: identifying excellence and enhancement of HE provision

Our recommendation is that **to achieve its greatest impact for students and employers**, the primary purpose of TEF should be the identification of excellence and the enhancement of educational provision. While TEF results should always be in the public domain and contribute to the information about our HE providers, the student interest is best met by focusing both the process and outcomes of TEF on the enhancement of the teaching and learning that students receive across UK HE.

In clarifying the purpose of TEF, we use the term educational excellence rather than teaching excellence for the following reasons:

- Studying HE involves a great deal more than being the recipient of excellent teaching. Learning is an active process not simply related to the quality of teaching. Learning experiences that shape student and graduate outcomes arise from a multitude of opportunities that HE provides in addition to excellent teaching.
- The TEF includes no direct measures of teaching. Indeed, there are as yet no generally agreed metrics which can be used to assess the quality of teaching across different subjects and different institutions. This is discussed in more detail in Chapters 4 and 5 on the ‘assessment process’ and ‘developing the framework’.

### Information, advice and guidance

There is a wealth of complex information available to inform applicants’ choices. This wealth of information about courses and institutions should be presented to applicants and the public in an accessible way. We see the ratings and underlying data from the TEF as one source of information that should be included in this. However, TEF should not be seen as the sole or best solution to the challenge of providing information, advice and guidance (IAG) to prospective students and their advisors. Indeed, we see some risks to applicants of the apparent simplicity of a single rating. Making the important choice about which course and which HE provider will best meet an individual’s particular needs is a difficult decision with significant consequences. It requires consideration of the individual relevance of a wealth of information and we are concerned that this is likely to be lost in a single rating.

We are aware that the OfS published a new student IAG strategy in March 2019 and plan to have a new student information resource in place in autumn 2019.<sup>28</sup> **We commend this initiative and suggest that TEF ratings should be fully incorporated into this source of integrated information.** The OfS may also want to consider how their IAG resources make best use of the richness of both the benchmarked and the absolute data used in the TEF process. It is our view that having TEF ratings and the underlying TEF data transparently in the public domain will affect institutional reputation and help to incentivise institutions to enhance provision.

## Access and participation

While TEF is complementary to the access and participation agenda and should continue to be so, it is our view that addressing the issues of access and participation should not be seen as the primary purpose of the TEF. The TEF should however, ensure that in delivering against its primary purpose of encouraging enhancement, institutions **consider the needs of all their students from all backgrounds**. We therefore support the continued use of design elements in TEF such as **benchmarking, split metrics and the criterion about ‘positive outcomes for all’**. We also encourage the OfS to use **comparable data across the TEF and access and participation** analysis and plans.

## Where TEF fits in the regulatory system

We heard uncertainty about where TEF sits in the regulatory system. This is not surprising given the significant changes in the regulatory environment for HE in England in the last few years. It will be essential, as participation in the TEF becomes an ongoing registration condition for registered providers (with more than 500 students) in England, to have **clarity about how it relates to the wider regulatory landscape for HE across the UK**. This includes being clear about:

- how TEF forms part of the ongoing conditions of registration for providers in England
- TEF’s relationship with the ‘UK quality baseline’ and the different quality assessment systems in place across the UK
- TEF’s relationship with the access and participation plans required for some providers in England
- the relationship between TEF, REF and the Knowledge Exchange Framework (KEF)

These **relationships should be communicated clearly** to ensure there is a coherent message, both domestically and internationally, about how all aspects of UK HE are regulated and assessed.

To achieve this, future development of the TEF should also involve **close communication across the devolved administrations**. While all UK universities and colleges must meet a set of rigorous UK-wide quality requirements as defined by the UK Quality Code, England, Scotland, Wales and Northern Ireland each implement their own processes for assessing quality against these requirements. In Scotland, Wales and Northern Ireland there are regular reviews of quality at institutional level which incorporate quality enhancement. In this review, when we use the term ‘UK quality baseline’, it should be understood within this context. Ideally, quality assurance and enhancement processes across these different regulatory regimes should be developed with each other’s needs in mind so as to maximise opportunities for complementarity and alignment. This is important for the way in which UK HE is seen across the world.

### Recommendation

1. The student interest is best met by TEF having the **primary purpose** of identifying excellence and encouraging enhancement of the educational experience and outcomes for HE students in the UK.

---

# Chapter 3: Principles



## Core principles

It is a significant challenge to develop a system for the assessment of excellence in educational provision that is valued and respected by all. This is particularly the case given the wide range of students and the different patterns of HE provision across the UK. For TEF to maximise its impact on the enhancement of educational provision across UK HE, it must have the confidence of HE providers and command respect both domestically and internationally. Given the range of concerns we heard, which we identify throughout this review, we believe there is room to improve confidence and respect in the framework.

In listening to concerns, we have identified three core principles which if delivered, we believe will strengthen confidence in the framework. We have used these principles to guide and frame our recommendations for improvement. Following this review, we suggest that these principles also inform periodic reviews of the framework and the implementation of any future changes or improvements.

We recommend that TEF should be: Transparent, Relevant and Robust.

## Transparent

### All elements of the framework, and any changes to it, should be clear to all involved

We heard much to suggest that the TEF process, especially the way evidence is handled, has not always been transparent. While there is a large amount of documentation about TEF, some parts of the process are still poorly understood by the sector.<sup>29</sup> For those working in HE providers to have confidence in the ratings and to engage fully with the process to drive enhancement, it is important that they understand how the TEF data is used and how the ratings are derived. Understanding is also generally low among some of TEF's other intended audiences, particularly prospective students, both in terms of the process (for example, benchmarking) and how ratings should be interpreted.<sup>30</sup> International audiences also have low levels of awareness and understanding.<sup>31</sup>

The recommendations and proposed changes made in this review aim to increase the transparency of a revised TEF. But we do not think it is enough for the process just to be transparent. Indeed, we found examples where something that is transparent in documentation about the TEF is frequently misunderstood across the sector.<sup>32</sup> This could indicate a lack of effective, user-centred communication.

### To be fully transparent, the framework should be widely understood

We believe that a **targeted communication programme** is needed to ensure that a transparent process and its outcomes are understood by all potential audiences (i.e. providers, students, applicants and their advisors, employers, international stakeholders and the general public). The communication programme will need clear leadership and close working across the sector. It should aim to address some of the specific misunderstandings about TEF, particularly those identified throughout this review, explaining its purpose, raising awareness and improving understanding of the assessment process. There should also be a clear and coherent message of the way that TEF fits into the wider regulatory system for HE across the UK.

## Relevant

### The design should be directly relevant to, and informed by, its primary purpose

We heard concerns that this has not always been the case and that TEF has risked becoming a vehicle for addressing other policy issues or concerns.<sup>33</sup> In the case of the revised TEF, all elements of the design should be informed by the need to identify excellence and facilitate the enhancement of provision. There should be **clear articulation of how all parts of the framework play a part in identifying educational excellence or enhancing educational provision**. As an example, when considering the use of metrics, it should be clear that:

- The metrics are relevant to assessing excellence in an aspect of HE provision and are used to assess that aspect that they purport to measure.
- The metrics can be affected by actions that the institution can take to effect improvement. Metrics that the institution has no influence over will be poor measures of an institution's ability to deliver excellence and will not facilitate enhancement of provision for all their students.<sup>34</sup>

### The process should have relevance for all HE provision

HE providers in the UK have a diverse range of missions that result in very different provision. HE delivered in an FEC is subject to different pressures and opportunities than HE delivered, for example, in a multi-faculty research-intensive university. The TEF should have the flexibility to make judgements against criteria and evidence that are relevant to identifying excellence in all the different settings that comprise UK HE.

## Robust

### The process and its outcomes should be statistically and operationally robust

By this we mean that the TEF process, the evidence feeding into it, the statistical analysis of quantitative data and the panel's rating judgements should all demonstrate optimal levels of reliability and validity.

Judgements should continue to be made by an independent panel of experts who receive specific training and ongoing supervision to ensure consistency across assessments.

The process should facilitate providers and students to submit their own evidence in a robust form. Any evidence presented in the submission, including an institution's own measures, should be verifiable. The TEF process should mandate this and consideration should be given to methods, such as an **audit of submissions**, to provide reassurance that this is the case.

The recommendations outlined in Chapter 4 on 'the assessment process' specifically address the statistical robustness of the TEF, but all the recommendations for a revised TEF aim to support the development of an operationally robust framework.

## Recommendation

2. To improve confidence and respect in the framework, **three overarching principles** should guide the development and delivery of a revised TEF. These principles should be used to inform periodic review of the framework. All elements of a revised TEF should be:
  - a. **Transparent** (clear to all and widely understood)
  - b. **Relevant** (to the purpose and to all provision)
  - c. **Robust** (both statistically and operationally)

---

# Chapter 4: The assessment process



## The current assessment process

The current TEF exercise assesses institutions across three aspects of quality:

- Teaching Quality
- Learning Environment
- Student Outcomes and Learning Gain

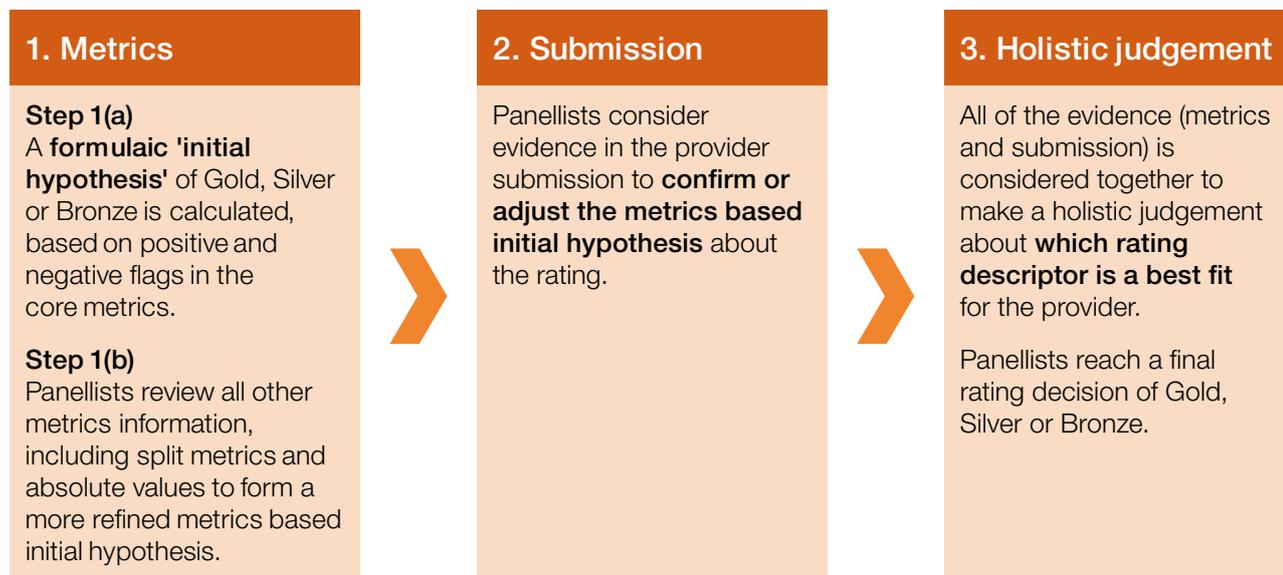
Performance for these three aspects is assessed against a set of 11 criteria<sup>35</sup> that map onto the aspects. Judgements are made by considering the following evidence:

- metrics (quantitative measures that are the same for all providers and therefore offer nationally comparable data)
- a submission written by the provider (this can include qualitative and/or quantitative evidence specific to the institution)

An independent panel arrives at a rating following a three-step process. Figure 1 provides a basic summary of the three steps, in which metrics are considered first, the submission is considered second, and then the panel makes a holistic overall judgement. At the very start of this process, the metrics are used formulaically to calculate an ‘initial hypothesis’ of the rating. This initial hypothesis has been a controversial element of the current process and its strength and influence on the final rating has driven many of the comments and issues set out in this chapter.

Please see Appendix A for a more detailed summary of the current process, a list of the metrics and criteria, and related links to find out more.

**Figure 1:** Simple presentation of the current 3 step TEF assessment process



This process currently occurs at provider level, with a rating given to each institution that applies. Subject-level TEF is currently being piloted using the same basic process to assess performance at subject level. If the subject process being piloted is rolled out across all HE provision, each institution<sup>36</sup> will have a TEF rating at provider level as well as up to 35 ratings for their provision in each of the 35 subject categories in CAH2.

## What we heard about provider-level TEF

Throughout the review, we heard a range of views from the sector about the TEF process. We present the most consistently heard issues here, in this ‘provider-level TEF’ section, as the exercise is currently being delivered at that level, though some inevitably also relate to subject level. More detail can be found in the call for views report<sup>37</sup> and in the listening sessions summary.<sup>38</sup>

We heard three main areas of concern:

### 1. Concerns about the data used and the way it is analysed

#### Assessing teaching excellence

We heard concerns that the **TEF metrics are not direct measures of teaching excellence**. This is a common criticism that came through strongly in both the call for views and the listening sessions.<sup>39</sup>

In the current framework, the NSS metrics, which provide information about a student’s reported satisfaction at the end of their course, are used as a proxy for measuring two aspects of quality: ‘Teaching Quality’ and ‘Learning Environment’. What the NSS *actually* measures is students’ agreement with a range of statements, including: the timeliness of feedback; how good staff are at explaining things; whether they have been able to contact staff when they needed to; and whether criteria used in marking have been clear in advance.<sup>40</sup>

There are studies that show correlations between students’ reported satisfaction and other measures of teaching quality.<sup>41</sup> However, using NSS indirectly to evaluate both ‘Teaching Quality’ and ‘Learning Environment’ with significant accountability implications for institutions has attracted criticism that this stretches the validity of the metrics.

Some people suggested that direct inspections of teaching should be considered for TEF, as this is the only way to directly observe ‘teaching’.<sup>42</sup> Others suggested that direct observation would have problems. While individual institutions may use observation as part of peer review of teaching to improve quality and share best practice, as a method for making comparisons of quality across institutions, observation was thought to have theoretical as well as logistical and financial limitations.

#### Assessing outcomes

We heard strong views that the **assessment of outcomes is too focused on employment**.<sup>43</sup> There is widespread concern that other positive outcomes of HE, such as wider social and cultural benefits, are not included in the framework.<sup>44</sup> We also heard that learning outcomes should play a greater role in the process. The current aspect in TEF entitled ‘Student Outcomes and Learning Gain’ does not include any measures of ‘learning gain’ – it is listed as one example of evidence that the provider could present.<sup>45</sup> In the listening sessions and call for views, learning gain was the most commonly suggested new criterion or measure for inclusion in the TEF.<sup>46</sup> While the challenges in defining and measuring learning gain were noted, we heard a consistent message that it was important to consider and assess learning gain.<sup>47</sup>

A more specific, yet consistent, concern about the use of employment metrics in assessing student outcomes was that the **region in which the student gains employment is not taken into account**.<sup>48</sup> There is indeed variation in graduate earnings and employment across regions of the UK.<sup>49</sup> Average salaries for graduates vary across different regions of the UK, with a clear salary premium for those working in London.<sup>50</sup>

None of the employment or salary metrics used in TEF account for the region of employment in any systematic and robust way. The panel are currently given data maps about graduate employment locations which it can use to take regional influences into account. We are concerned that these data maps are not sufficient to enable panels to consistently take this factor into account.

This is a particular issue for the salary metric based on longitudinal educational outcomes (LEO) data, as a student is only counted as having a positive salary outcome if they earn above a certain threshold. This salary threshold is based on the national average for 25–29 year olds. In 2015–16 (the latest LEO data available), this national median earnings threshold was £21,500.<sup>51</sup> For graduates (as opposed to 25–29 year olds), the LEO data shows that earnings are generally higher than this threshold, with the national median three years after graduation being £23,300. However, this LEO data has recently been updated to include the geographical location of graduates and shows that the median earnings of graduates in some regions is just below the £21,500 threshold.<sup>52</sup> Providers may therefore be disadvantaged by the LEO salary metric if their students choose to find employment in these lower salary regions.

Analysis of the updated LEO data supports the view that where a provider's graduates choose to live and work may have an impact on that provider's average earning figure.<sup>53</sup> As this data is not yet part of the TEF metrics, we cannot directly assess how the location of graduates impacts on the LEO metrics in the TEF. We can however, look at the LEO metrics broken down by the location of the institution. Figure 5 and Figure 6 at Appendix B illustrate that providers in London and the South East have a greater proportion of positive flags for their salary metric in TEF compared to other regions. If we make the assumption that most of their graduates are also working in London or the South East, this supports the view that there is a risk of the salary metric in TEF underestimating the success of graduates who choose to work in areas of lower average salaries.

We also heard concerns that seem to be a consequence of misunderstandings or miscommunication about how the LEO metrics work. For example, we heard that some socially important professions (such as nursing and teaching) are disadvantaged by the salary metric because they have lower graduate salaries.<sup>54</sup> In fact, the LEO salary metric does not look at absolute salary data, but rather whether a student is earning 'above a certain level'. As the starting salaries for graduates in nursing (£21,692)<sup>55</sup> and teaching (£22,244)<sup>56</sup> are above that threshold level, students employed as graduate nurses and teachers would be counted as a positive outcome in this metric. This also means that a student employed in investment banking, which has a much higher starting salary, would count as equal to a student employed as a nurse or teacher. It would still be possible for some professions to be disadvantaged by this metric, but only if their salary levels are lower than the threshold (as mentioned above, in 2015–16 that threshold was £21,500). Some suggested this could be the case for creative arts subjects.<sup>57</sup>

Another example concerns the LEO sustained employment metric, which is not benchmarked for POLAR data (Participation of Local Areas).<sup>58</sup> In fact, benchmarking factors for the LEO metrics, as with all TEF metrics, were chosen based on those factors which have a statistically significant relationship with the metric indicators.<sup>59</sup> POLAR was not included as a benchmarking factor for the LEO sustained employment metric because it was found *not* to have a statistically significant impact. For the LEO salary metric, the opposite is true – POLAR is included as a benchmarking factor because it *does* have a statistically significant impact on the salary based metric.

These examples show how important it is for the methodology and rationale behind the decision making to be transparent and communicated well.

## Time lag

The time lag in the data used for TEF metrics was also raised.<sup>60</sup> This is a particular concern for the LEO metrics, as the data feeding into these metrics refers to students who graduated from the institution seven, eight and nine years ago. There are several reasons for this time lag:

- all TEF metrics combine three years of data
- the LEO metrics measure outcomes three years after graduation
- the release of data is lagged due to data collection and processing times
- converting the data into TEF metrics also involves processing time

While it is most prominent for LEO, lags are also a factor in other TEF metrics. The employment metrics draw on data from the DLHE and Graduate Outcome (GO) surveys, which are undertaken 6 and 15 months after graduation, respectively. The NSS metrics measure satisfaction of final year students at the end of, usually, three years of study. Therefore, they are not necessarily representative of current students in years 1 and 2 or foundation programmes.

## Statistical analysis

We heard much concern about **potential limitations of the statistical analysis of the data** used in the TEF process. Many of these centred around the process for generating and using the initial hypothesis, including the impact of:

- benchmarking versus absolute performance
- the method for flagging positive and negative performance<sup>61</sup>
- the weighting of each metric
- small numbers and non-reportable metrics

We commissioned the ONS to conduct an independent analysis of the statistical process and asked them to consider the validity of the statistical challenges that have been made. We also met the RSS at an early stage in the review to hear their concerns directly and to ensure these were included in the ONS commission. The findings of the ONS, and the scope of issues we asked them to consider, are set out in their report.<sup>62</sup>

## Balance between the national metrics and provider submission

We heard a general view that **the metrics have too great an influence on the process and rating**, particularly via the initial hypothesis and flags for positive and negative performance.<sup>63</sup> The metrics flags are the first evidence source considered by the panel and are used to form an initial hypothesis about the provider's overall rating, integrating all three aspects of quality.

The submission from the provider is only considered after this initial hypothesis has been formed and we heard a consistent concern that insufficient weight might therefore be given to the information in the provider submission.<sup>64</sup> While the final rating given by the panel is an overall holistic judgement, we heard the view that there is an anchoring effect created by giving the metrics priority and using them to establish an initial rating.<sup>65</sup> The fact that the initial hypothesis is based solely on the metrics also means that criteria for which there are no metrics (e.g. 'Valuing Teaching') cannot influence the initial hypothesis.

We note that of all the ratings awarded to date, 29% of providers have received a final rating that is different from the initial hypothesis (either higher or lower).<sup>66</sup> A proportion of this 29% will be institutions where small numbers have meant they gain an initial hypothesis of Silver by default and provider information has been used to change the rating from this initial default. Despite this evidence that the submission can make a difference, there is still a strong view from providers that greater weight needs to be given to the evidence presented in their submissions.

This potential imbalance between the metrics and the information provided in the submission was seen by many providers as restricting their ability to ensure that an institution's specific situation is taken into account in arriving at the final rating judgements.

This comment was made particularly by providers who felt they needed to use valuable space in the page-limited submission to explain gaps in their metrics due to the size or nature of their provision. It emerged from the call for views that smaller providers, with gaps in data that need to be explained, relied more heavily on the written submission while only having the same page limit as the larger providers.<sup>67</sup> This was especially the case for FECs and APs, who made the point that their mission was often different to higher education institutions (HEIs).<sup>68</sup>

We heard in all settings that institutions want more opportunity to highlight their specific value. This, combined with the views that submissions do not carry enough weight and that they have to be used to explain their metrics, suggests there is **insufficient opportunity for the rating to be influenced by an institution's articulation of their educational mission and how it leads to the distinctive learning opportunities and outcomes they aim to provide**. This was seen as a potential area of unfairness.

## 2. Fairness of the process for an increasingly diverse sector

### Resource constraints at small providers

We heard from smaller providers that they felt disadvantaged because they have fewer resources available to work on TEF related activities (e.g. understanding the process and developing their submission).<sup>69</sup> This was most commonly raised by FECs and APs, many of which only have a single staff member responsible for their TEF submission.<sup>70</sup>

## Distinctive student groups

Some providers felt they were disadvantaged because they had a large proportion of students that are not captured very well by the metrics. Comments were most commonly made about mature, part-time and international students.

In terms of assessing outcomes, there is a concern that the employment metrics fail to capture the value that some groups of students gain from their degree.<sup>71</sup> For some students at some institutions, the ability to achieve highly skilled and/or highly paid employment is not the main aim of their HE degree. For example, some part-time and mature students who are already employed may be studying to further their knowledge in an area of interest unrelated to their job. Or they may be on a course supported by their employer with the goal to do their current job more effectively rather than to get a better salary.<sup>72</sup> This aligns to the message we heard from across the sector that outcomes are too focused on employment, as discussed under 'assessing outcomes' earlier in this chapter.

The other common concern for part-time students is the relevance of the continuation metric. Since part-time students may choose to progress through their studies in a flexible manner, the continuation metric may show negative results even if a part-time student has intentional gaps in their attendance or has achieved the outcome they set out to achieve.

For providers with a large proportion of international students, by far the biggest concern was that international students are not included in the continuation or employment metrics. Based on discussions with the OfS, we understand that there are data limitations that make it very challenging to include international students in these metrics in a robust way. There are issues with the comparability of entry qualification information, making it very difficult to benchmark the data, and the response rates to employment surveys are often low.<sup>73</sup> By not including international students, the data only captures a subset of the students at some providers.

## Further versus higher study

Under the current highly skilled employment metric in the TEF, a student is counted positively if they are either in highly skilled employment or in 'further study'.<sup>74</sup> During our listening sessions, we heard a common concern about the potential move from 'further study' to 'higher study' in this metric,<sup>75</sup> a move that is being tested in the 2018–19 subject-level pilot.<sup>76</sup> Some study leading to certain professional accreditations is not counted as 'higher study' under the new definition, even though that study is required to progress into highly skilled employment in that industry.<sup>77</sup> For example, a Legal Practice Course would not be counted as higher study.<sup>78</sup> Providers offering courses that lead to employment in those accredited professions are concerned they will be disadvantaged by this potential change, even though their students are likely to progress onto highly skilled jobs once their further study is completed.

## Absolute performance

The most polarised views that we heard about TEF concerned the use and prominence of absolute values in the assessment process. Providers who tended to have high absolute values felt disadvantaged by the lack of prominence given to absolute values compared to benchmarking. Providers that tended to have lower absolute values felt disadvantaged by the inclusion of markers for high and low absolute values and thought these should be given less weight than benchmarking. Both of these views are understandable.

## Providers in the devolved administrations

In our listening sessions with organisations from the devolved administrations, we heard a general concern that the process does not sufficiently account for the context in Scotland, Wales or Northern Ireland.<sup>79</sup> In particular, a common factor mentioned by all three devolved administrations was the impact of operating within their different labour markets. This aligns with the message we heard from all parts of the sector about regional labour markets, which is discussed under ‘assessing outcomes’ earlier in this chapter.

Other, more specific, contextual factors included:

- different HE funding schemes, which could impact on continuation rates and provider resources
- different degree structures, such as the modular approach common in Scotland
- different measures of socioeconomic disadvantage

### 3. Students feel they are not sufficiently involved

In the current TEF process, institutions are *encouraged* to engage their students when developing and drafting their TEF submission, but are *not required* to do so in any formal way.<sup>80</sup> In the subject-level pilot this year, to encourage greater student engagement and input, a student representative from the institution was asked to fill in a declaration form about how the institution had involved its students in developing its TEF submission, including whether they had contributed content.<sup>81</sup>

While the pilot approach goes some way to increasing the involvement and views of students, it does not require providers to do so. A common suggestion made by students was to have a separate student submission so that students could give their own view of their provider’s performance.<sup>82</sup>

### We also heard a positive message about peer review

The element of peer review involving both academics and student panel members is seen as an important part of the process and aligns with the way judgements are made in the REF. In previous consultations held by the DfE, peer review was cited as a key strength of the current provider-level TEF process, with a view that it should be retained.<sup>83</sup>

## What we heard about subject-level TEF

### There are unintended consequences of subject categorisation

We heard a number of concerns from across the HE sector about the way subjects are categorised in subject-level TEF. The categorisation system used in the subject-level pilots is a refined version of CAH2, which is part of the standard categorisation system used by the Higher Education Statistics Agency (HESA) for all student data.<sup>84</sup> A common view from providers was that these subject categories do not reflect the way they deliver their courses and awards. We heard from providers that they struggle to align their existing performance management and data collection systems to the subject categories used in the TEF.<sup>85</sup> Since HE providers structure their academic departments and educational provision in a variety of different ways to reflect their different missions, it is unlikely that any broad base of subject categorisation will readily match their course structure.

The current subject groupings were also considered to be too broad to enable meaningful comparisons or to capture the diversity between courses.<sup>86</sup> FECs and APs particularly expressed concern that differences in performance in the metrics, especially employment metrics, for specialist or single-subject providers could be explained by differences in the type of course within the broad subject grouping.<sup>87</sup>

In addition, we heard that the subject groupings could not take into account interdisciplinary programmes where students study across subject categories.<sup>88</sup> If the process of assessment is unable to evaluate interdisciplinary provision, there is a risk that subject-level TEF might have the unintended consequence of stifling innovation in subject provision and dis-incentivising important educational developments in interdisciplinary learning.<sup>89</sup> This has practical implications for applicants, who find it difficult to interpret the subject categories when they are studying a course that is classified against more than one category. IFF Research found that while a large majority (82%) could identify at least one relevant subject category, only 36% were able to accurately identify all subject categories relevant to their interdisciplinary course. In comparison, for single subject courses, 71% of applicants were able to identify the correct subject category.<sup>90</sup>

## There are unresolved issues with missing data and small numbers

Many providers who responded to the call for views, particularly those with smaller cohorts, expressed concern about the lack of reportable data in provider-level TEF.<sup>91</sup> These problems are exacerbated for subject-level TEF. All parts of the sector reported concerns about the impact of small numbers or non-reportable data at subject level.<sup>92</sup> FECs and APs particularly raised concern that, for smaller cohorts, they struggled to produce data that had any statistical significance and/or data that was reportable. They feared this put them at a disadvantage compared to other providers.<sup>93</sup>

## An increased burden and questions about value for money

Providers expressed concern that the TEF process has had an impact on staff, limiting their time and resource capacity for other work, including teaching.<sup>94</sup> In particular, we heard strong views about the administrative burden of subject-level TEF and a persistent questioning about its value for money. Most providers cited the increased time and resource for subject-level TEF caused by producing written submissions for each subject.<sup>95</sup> Providers with a higher number of subjects cited the burden of managing multiple subject-level submissions and the administrative effort needed to get academic departments up to speed on requirements.<sup>96</sup> Smaller providers cited problems with having fewer staff able to create subject-level submissions.<sup>97</sup>

The TEF cost estimates updated by the DfE for this review show that subject-level TEF places a higher burden on providers than provider-level TEF.<sup>98</sup> Inevitably, the burden of applying to subject-level TEF will vary across providers for a number of reasons, including the level of resource available and the number of subjects being assessed. We heard a range of views from providers about the administrative burden of subject-level TEF. The DfE analysis gives a range of £42,000 to £73,000 per provider but uses an average figure of £57,000 (which is based on 15 subject submissions) for the purpose of aggregating across the sector. This compares to an average figure of £20,000 per provider for provider-level TEF, meaning subject-level TEF would increase the cost for providers by almost three times.<sup>99</sup>

When considering the total cost to roll out subject-level TEF across the whole sector, the relative increase is similar. The DfE estimate that it will cost a total of £30 million for the first round of assessments, compared to £11million for provider-level TEF. Over 10 years however, the cost increase is lower because subject-level TEF is expected to have less frequent application rounds and longer award durations. Using the mid points, the DfE estimates that subject-level TEF will cost £100 million to £110 million in 10-year present value terms (this range depends on whether the awards last for six or four years respectively), compared to £65 million to £75 million for provider level (with awards lasting for five or three years respectively), representing an increase of only 30–40%. This shows that policy decisions about application frequency and award duration will have a big impact on the overall cost of the exercise.<sup>100</sup>

These DfE estimates are based on figures from the costing study undertaken by the OfS as part of their first subject-level pilot, adjusted to reflect the new model currently being piloted. The full cost analysis by the DfE, including the full range of costs and a sensitivity analysis, is provided in the report at Changes to the Teaching Excellence and Student Outcomes Framework – updated cost estimates.

### But subject-level data is seen by providers as useful for improvement within institutions

Despite a largely negative narrative from the sector about the cost and burden of subject-level TEF, we consistently heard a contrasting, widely-held view from a range of institutions that the subject-level exercise has provided data in a way that can have a value internally in the enhancement of subject performance.<sup>101</sup> We heard that the subject-level metrics gave those responsible for educational quality a lever to drive conversations within the institution about variations in performance across subjects that had not happened before. The benchmarked data was seen as particularly valuable in this regard as it allows comparison across institutions, which is a strong driver for enhancement at subject level.<sup>102</sup>

We heard this, unprompted, at virtually all listening sessions and from teaching and education leads in all parts of the sector. Being given subject-level information that they have not previously had easy access to, and on which they now know they will be judged, has led to new discussions within providers which relate to enhancement of provision. These concern the relative performance of some subjects, as well as the performance of particular student groups within subjects, made possible by the splits of the data by student characteristics.

### And students report that subject-level ratings would be more helpful than provider-level TEF ratings when choosing where to study

We heard a general view that subject-level TEF ratings would be more useful than provider-level ratings in helping applicants with their decision making.<sup>103</sup> If presented with both provider-level and subject-level ratings, 82% of applicants said they would use both, with a further 11% saying they would only use subject-level ratings and 3% saying they would only use provider-level ratings.<sup>104</sup> Subject-level ratings were also seen as helpful by advisors, with 71% saying they were likely or very likely to use subject-level TEF with their students.<sup>105</sup>

From an IAG perspective however, we also heard some concern in the call for views and the listening sessions about the potential confusion caused by an institution having multiple, and possibly different, ratings at provider and subject level.<sup>106</sup> Some also felt that in order to be more useful, subject-level ratings should be provided at a more granular level, such as at course level.<sup>107</sup>

## The OfS subject-level pilot has identified significant challenges

The interim OfS subject-level pilot findings that have been shared with the review highlight a series of challenges experienced with subject-level TEF so far. These align with many of the issues and risks that we have set out above. The pilot has found the biggest challenges to be:



**Scalability** – The volume of assessments when scaling up the subject-level TEF exercise would be many times greater than the pilot, and would require many more panels and panel members. The pilot study tested approaches to assessing at scale, and to moderating across panels with the aim of achieving consistent standards of judgement. Both of these were challenging within the pilot and would require significant further work to resolve in a full exercise.



**Subject categorisation** – The improvements made to the subject categories, based on feedback from last year's pilot, were welcomed. However, participating providers are concerned that mismatches between these subject categories and their internal structures remain, and these mismatches reduce the usefulness of subject-level assessments. Concerns also remain about interdisciplinary provision and the potential for fixed subject categories to constrain innovation.



**Relationship between subject-level and provider-level assessment** – Further work would be required to ensure coherence between the provider-level and subject-level assessment. In some cases, the pilot has produced a disparity between a provider's overall rating and its subject-level ratings such that none of its subject-level ratings were the same as its provider-level rating. This could potentially undermine credibility of the ratings in a full exercise.



**Data limitations** – The evidence available to panels has been limited for a significant number of subjects assessed in the pilot. This occurs, for example, where some of the metrics are not available, sample sizes are small, or there is a mismatch between the courses captured by metrics (which involve time lags) and the courses currently being run. In the pilot, panels judged on a case-by-case basis whether there was sufficient evidence to give a rating, but are concerned that this approach would not be scalable.

The OfS also shared some of the positive feedback and areas that were working well at this stage. Some examples include:



participating providers, students and panels reporting **additional value** from drilling down into subject-level performance, above and beyond the current provider-level approach



the increased focus on **student voice and student partnership** in the assessment has been welcomed and both panellists' and students' representatives expressed a desire to extend the opportunities for students to submit evidence more directly into the process

These emerging findings were reported to the OfS board in July 2019<sup>108</sup> and we also expect these points to be expanded in the full subject-level pilot findings report. At the time of writing this review, the full pilot findings report was due to be published by the OfS in autumn 2019.

## What we conclude and recommend

In weighing up the strength of the criticisms and arriving at conclusions about what to recommend, we take our independence from the DfE and the OfS very seriously. We also place importance in being objective and alert to the needs and motivation of different parts of what is now a very diverse sector. It is inevitable that the comments that we have received from providers will have been motivated to some degree by the institutions' assessment of the impact of the process on their own reputation. The perspective of an FEC will differ from that of a research-intensive university, and the perspective of a specialist institution will differ from that of a large multi-faculty institution. Nevertheless, we have been impressed by the keen interest expressed in all the listening sessions on the need to have the promotion of excellence of UK HE in all its variety at the core of the TEF. We must aim to consider the interests of all students in all types of institutions as we develop our conclusions and recommendations.

If there were a generally agreed definition of excellence in HE with tested metrics to assess it, our task would be relatively easy. But both nationally and internationally there are very varied views of what an excellent educational experience and environment should look like and no agreed metrics against which to assess performance.

We looked at other international models for measuring educational excellence to see what we could learn from their approaches. For example, Australia is planning to implement a performance-based funding scheme to improve university student outcomes. Their focus on funding gives it a different purpose to the TEF, but the process has some similarities. The recent panel report submitted to the Australian Government recommends a scheme that assesses student experience, graduate outcomes, student success and equity group participation, with measures drawn from a suite of surveys of Australian HE institutions and their students.<sup>109</sup> Other examples include the global U-Multirank,<sup>110</sup> which ranks HE institutions across five dimensions, including teaching and learning. In Malaysia, Setara Ratings<sup>111</sup> assess performance across teaching, research and services, and China is trialling an 'Evaluation Scheme for Undergraduate Teaching in the General Institutions of Higher Learning'.<sup>112</sup> While these systems draw on a range of different measures, the nationally comparable measures of educational excellence are often similar to those currently used in the TEF (student surveys, employment rates and continuation or completion rates), and we found no system with novel ideas and methodologies from which we could learn. Indeed, many countries are looking to the UK and developments in TEF to inform their own thinking in this area.

The UK quality baseline establishes a high quality bar for UK HE and this has contributed to our longstanding international reputation. Having reached the UK quality baseline, institutions have the opportunity to deliver learning experiences in a way that meets their institutional mission. This is a strength that leads to a wealth of different kinds of learning environments and which enables the sector as a whole to meet the needs of the broad range of students that we wish to attract into HE.

The challenge for TEF is to be able to take the diversity of the sector into account, while at the same time making robust comparisons about performance to identify excellence wherever it occurs and to support enhancement of UK HE as a whole.

It is our view that the concerns we identified in the ‘what we heard’ sections above reflect some weaknesses in the current TEF process at provider and subject level. These weaknesses need to be addressed if the exercise is to become the robust and respected process for promoting excellence that was intended. The concerns are not, in our view, of a scale that warrant the removal of TEF. Nor do they suggest that an entirely different approach, such as the observation of teaching, should be taken. This would have its own challenges and limitations, as learning in HE does not just happen in the classroom and the required investment would be significant. In this review, we aim to address the weaknesses we have observed by making recommendations for improvement which build on the strengths and achievements of the TEF process to date. We aim to make proposals that set a direction, rather than prescribe details, for a revised TEF that through its process and its outcomes facilitates enhancement in the provision of HE.

We consider that there are 3 categories of improvement needed. There needs to be improvement in the:

- process
- statistical analysis
- subject-level exercise

## The process

We have concluded that to address the process issues, the TEF should:

- deliver the principles of transparency, relevance and robustness outlined in Recommendation 2 in all parts of the process
- be transparent about what the metrics actually measure and use them unambiguously to assess that variable (for example, the NSS measures student satisfaction)
- control for variables that are significantly affected by factors outside the provider’s control (for example, the influence of geographic region on employment outcomes)
- improve the balance between nationally comparable metrics and institutionally determined evidence (qualitative and quantitative) in the assessment process
- give current students greater opportunity to contribute evidence to the assessment

While some of these improvements can be achieved by making adjustments to the assessment process, others are embedded in the structure of the current framework, including the level of transparency and the balance of evidence required. We therefore recommend that adjustments are made not only to the **process**, but also to the structure of the existing TEF **framework**. Our proposals for adjustments to the framework are set out in the next chapter on ‘developing the framework’.

## Statistical improvements

We are extremely grateful to the ONS for the careful consideration they have given to the statistical processes in the TEF and for the detailed suggestions that they have made about improvements to the statistical analysis.

The ONS report notes the care with which the statistical analysis of TEF data has been constructed and the way that the DfE and the OfS have responded to feedback by delivering improvements in method and transparency over time. We support and agree with that observation. They conclude however, that despite these improvements, there are some significant concerns which should be addressed.

---

**“Our main conclusions are that the TEF methods have been developed with a lot of care, and it is commendable that we now have an assessment of a very complicated and difficult-to-measure concept. However, the statistical elements of the current process have the potential to produce inconsistent results, and we think these can be improved. As already noted, there are elements of the communication of TEF, its documentation and guidance on usage, that could be enhanced too.”**

**Office for National Statistics<sup>113</sup>**

---

There is strong overlap between the concerns we heard across the sector and the findings of the ONS. We conclude that, at present, the statistical process does not meet the principles we outline in our Recommendation 2 for the future success of the TEF. The statistical process is currently not sufficiently transparent, including not being well understood, or sufficiently robust.

In considering the ONS report alongside our own observations, we have concluded that changes need to be made to ensure TEF meets not only this review’s recommended TEF principles, but also the UK Statistics Authority’s Code of Practice and their principles of trustworthiness, quality and value.

The areas of most concern and which need improvement, relate to the management and communication of:

- statistical uncertainty at all levels of the process, including multiple comparisons<sup>114</sup>
- small numbers (small providers and/or small datasets) and non-reportable metrics
- relative versus absolute comparisons

These have a significant impact on flagging and generating the initial hypothesis, which are central parts of the current process.

These concerns become even more acute in subject-level TEF where small numbers and non-reportable metrics become more frequent. This is discussed in the next section on the subject-level exercise.

The ONS has made 33 recommendations which it has ranked in terms of high, medium or low priority. The ONS recommendations and the overall recommendations of this review are complementary and can be integrated in the development of a revised TEF. We set out in Appendix C our assessment of how the ONS recommendations relate to the areas of most concern to the review.

We also suggest that the **statistical analysis and methods should be a core part of the overall periodic review of TEF**. New data or metrics may become available and developments in statistical best practice may offer additional opportunities for improvement. There may also be changes in the sector over time which should be reflected in different patterns of analysis.

## Recommendation

3. **Statistical improvements** are needed to address concerns in the management and communication of:
  - a. statistical uncertainty at all levels of the process, including multiple comparisons
  - b. small numbers (small providers and/or small datasets) and non-reportable metrics
  - c. relative versus absolute comparisons

These issues are of particular importance to the design of any statistical processes that may guide TEF judgements, such as flagging and initial hypotheses.

## Subject-level exercise

### The issues

There are risks to the reliability and validity of the subject-level process which arise from three key issues that we think cannot currently be addressed:

#### 1. The way 'subjects' are categorised

We agree with the concerns outlined above concerning the unintended consequences of the subject categorisation. The problems for interdisciplinary programmes, specialist providers and the fact that students experience their learning at course level, not CAH2 levels, are all difficulties that cannot easily be addressed.

#### 2. Statistical implications of small numbers and non-reportable metrics

The problem of small numbers at subject level, which we identified at listening sessions and in the call for views, is supported by the ONS, who found that the statistical issues with the TEF metrics are exacerbated at subject level. The proportion of non-reportable metrics is much higher at subject-level than at provider-level and the impact of small numbers (i.e. reportable metrics but with small samples) is more pronounced.<sup>115</sup> In the government's technical document for their 2018 subject-level TEF consultation, they indicate that:<sup>116</sup>

- Although 98% of students will still be in subjects with suitable metrics, **87% of providers would have non-reportable core metrics in at least one subject** (because most providers have at least one small subject).
- Non-reportable metrics are significantly more common for FECs and APs compared with HEIs. The proportion that had at least one non-reportable core metric was:
  - for HEIs, 13% of subject instances, spread across 126 providers
  - for FECs, 85% of subject instances, spread across 177 providers
  - for APs, 50% of subject instances, spread across 5 providers

The ONS report also confirmed the increased prevalence of small sample sizes at subject-level<sup>117</sup> and concluded that both smaller sample sizes and fewer reportable metrics make the subject-level metrics less reliable.<sup>118</sup> This brings a risk that using subject-level metrics to derive TEF ratings for each subject will challenge the robustness of the overall TEF process.

We *do not* think this problem can be solved by simply increasing the minimum sample size for subject-level metrics. If subject ratings were only awarded to larger subjects that have more robust data, this could disadvantage providers with small subjects that would not get a rating. We know from the surveys conducted by UCAS for this review that having ‘no rating’ makes applicants much less likely to apply to a subject. When applicants were asked what impact subject-level TEF ratings would have on their likelihood of applying, 32% reported they would be much less likely to apply if it was a ‘no award’, compared to 14% if it was Provisional, 8% if it was Bronze, 5% if Silver and 1% if Gold.<sup>119</sup>

If the minimum sample size was increased, analysis suggests that it would lead to a systematic disadvantage for FECs. This can be seen from the data presented in Annex C in the government’s response to its subject-level TEF consultation.<sup>120</sup> An extract of this data is shown in Table 1. This shows that even a conservative increase in the sample size to 30 students would lead to just over 50% of subjects and 24% of students at FECs not being captured by subject ratings. This is much higher than for other types of provider.

**Table 1:** Coverage of subject-level TEF under various minimum sample sizes (data for all providers, looking at subjects and students excluded from subject assessment)<sup>121</sup>

Minimum sample:	30 students		40 students	
	Subjects	Students	Subjects	Students
<b>FECs</b>	53.6%	24.4% (23,000)	62.3%	37.7% (29,000)
<b>APs</b>	33.0%	6.4% (3,000)	36.4%	7% (3,000)
<b>HEIs</b>	8.8%	1.2% (20,000)	9.9%	1.3% (21,000)

### 3. Risks in scaling up

We are concerned by the risks we see in scaling up from the existing subject-level pilots where any difficulty identified in a pilot study is likely to be exacerbated. Even with only 35 different subject categories, assessing and rating each individual subject would mean undertaking about 3,500 to 4,500 subject assessments.<sup>122</sup> This would be in addition to the approximately 300 or more assessments that occur at provider level, as the system being piloted retains both provider-level and subject-level ratings.<sup>123</sup> To implement that, the OfS estimates that it would probably need an additional 350 to 450 assessors and panellists, and that 10 separate subject panels would be needed in addition to the main provider panel.<sup>124</sup> This would result in challenges to consistency, bringing risks to the reliability of the process which is likely to increase the number of appeals from providers. We note that the REF process requires significant numbers of panels and panellists and as TEF develops, there may be lessons to be learned about how cross-panel reliability might be delivered with confidence from the sector.

At present, however, the findings of the subject-level pilot studies and our own direct observations of panel assessments suggest that moving to subject-level TEF in the near future will bring significant scalability risks and increase the burden of the exercise for both the sector and the regulator.

## A strong counterbalance to these criticisms is the observation that subject-level data has value for driving internal enhancement

We were struck by the consistency of the message from all parts of the sector that the subject-level TEF metrics provided to institutions as part of the subject-level pilots, including the benchmarking and splits, has stimulated enhancement actions that otherwise would not have happened.

This is a powerful observation that should not be ignored. It suggests a gap in how information is being used across the sector and provides an insight into how a subject-level exercise can, as part of its process, make a contribution to the enhancement agenda.

Subject-level data has the capacity to identify excellence as well as areas of concern. It therefore adds an additional source of data for the demonstration and articulation of excellence across the sector.

### What we conclude

It is our judgement that the combined risks to the robustness of TEF in proceeding with **ratings** at subject level, at this stage, outweigh the benefits. There is a significant risk that the problems outlined above will lead to challenges and widespread criticism, which could undermine the successful development of TEF as a whole.

We come to this conclusion primarily on the basis of the risks we have identified rather than a financial analysis of the administrative burden. The updated financial cost estimates from the DfE show it would indeed increase workload for the sector and the OfS. If at some time in the future the risks could be adequately mitigated, this financial increase in cost and workload probably should and could be managed. The work that we have done on value for money indicates that the financial costs appear proportionate to the overall investment in the educational process made by both students, the government and institutions, especially when considered over 10 years.

Currently, we believe there is value in a subject-level exercise, but that the current subject-level TEF process which leads to ratings at subject level involves risks that cannot yet be mitigated.

### What we recommend

We therefore recommend that a subject-level exercise should be incorporated into a revised provider-level TEF assessment process and inform provider-level ratings. This would mean that **ratings are not awarded at subject level**.

We are not formally recommending the detail by which this should be done, as that is outside the scope and timescale of this review. We have however, given some initial consideration to possible approaches that could be taken and made some proposals, including:

- **Subject-level metrics** – Providers are given the full set of subject-level metrics, including both benchmarked and absolute data and all splits, similar to the data given to providers in the 2018-19 pilot. At least a subset of the subject-level metrics would also be provided to panels to inform their assessment. As the TEF metrics are classified as official statistics, this would mean subject-level metrics would be published and in the public domain.

- **Limiting factors** – To ensure that this enhancement part of the revised TEF process has maximum impact, we suggest that failure to demonstrate that the institution is delivering enhancement actions which are sufficiently addressing poor performing subjects should act as a limiting factor in the ratings.

We set out our proposals for developing the subject-level exercise in more detail in the next chapter on ‘developing the framework’.

#### **Recommendation**

4. **A subject-level exercise** should be developed for inclusion in the provider-level assessment to inform **ratings at provider rather than subject level**.

---

# Chapter 5: Developing the framework



## Proposed framework

If TEF is to become a robust and respected component of the regulatory landscape, it must address the challenges of this review. In the previous chapter, we set out some process improvements that we think are needed to address these challenges. In this chapter, we set out our thinking about how the existing framework could be adjusted to incorporate these improvements and, through its processes as well as outcomes, facilitate enhancement of provision.

We are very aware that in the short period of this review we are not able to fully test our emerging ideas and that it will be for the DfE and the OfS to respond to our recommendations. The proposals summarised below provide a framework which will need to be developed and subjected to proper testing, but which we believe starts to incorporate the improvements needed.

Our proposals aim to build on the strengths of the existing process. They continue to draw on nationally comparable and institutionally specific evidence, both qualitative and quantitative in form. We propose the following adjustments to the existing framework:

- To be more transparent about what the metrics actually measure, we propose that NSS metrics are used to assess 'Student Satisfaction'. This is a change from the current framework which uses NSS to assess the aspects of 'Teaching Quality' and 'Learning Environment'.
- To be more relevant to *all* HE provision, we propose that the assessment of outcomes gives more prominence to 'Educational Gains'. This means moving away from the current framework which has 'Student Outcomes and Learning Gain' in the same aspect of assessment.
- To be more robust and control for variables that are significantly affected by factors outside the provider's control, we propose that employment measures account for regional differences in graduate labour markets.
- To improve the balance between nationally comparable metrics and institutionally determined evidence, we propose that half of the assessment is based on nationally comparable data and the other half is based on evidence that institutions choose themselves.
- To give current students greater opportunity to contribute evidence to the assessment, we propose that students are able to provide their own written input.

This leads us to propose a revised structure for the framework that:

- Moves from three to four aspects of assessment which reflect two different dimensions – educational experience and educational outcomes – resulting in a two-by-two structure where each dimension has two aspects. We propose that each of these dimensions should have one aspect in which national data can be compared and one aspect in which institutions demonstrate their excellence from evidence that they choose themselves.
- Retains nationally comparable metrics where they meet the principles of transparency, relevance and robustness, and uses them in a way that incorporates our recommended statistical improvements and process improvements.
- Incorporates a subject-level exercise within this adjusted framework so there is one integrated assessment process, with all ratings at provider level. We propose that variability in subject performance is addressed in each of the four aspects of assessment. The way variability is best defined for this process should be part of the developmental testing. We set out some proposed options for identifying variability in subject performance later in this chapter in the section on 'Developing the subject-level exercise'.

An outline of our proposed framework structure is presented in Table 2.

**Table 2:** Proposed framework structure  
(emerging ideas which need to be further developed and subjected to proper testing)

<b>Dimensions of excellence</b>	<b>Aspects of assessment</b>	<b>Evidence</b>
<b>Educational Experience</b>	<b>Teaching and Learning Environment</b>	<p><b>Addressing:</b> ‘How we create an excellent environment for teaching and learning and how we know we are doing this well’</p> <p><b>How evidence is presented to the panel:</b> Institutionally determined evidence relevant to their mission (qualitative and/or quantitative data), including how they have addressed variability in subject performance: submission only.</p>
	<b>Student Satisfaction</b>	<p><b>Addressing:</b> ‘What our students think of our educational provision’</p> <p><b>How evidence is presented to the panel:</b> Nationally comparable metrics (provider and subject, including splits for both): NSS measures. Institutional response to the metrics, addressing subject variability and additional institutionally determined evidence: in the submission.</p>
<b>Educational Outcomes</b>	<b>Educational Gains</b>	<p><b>Addressing:</b> ‘What our students gain from their educational experience and how we evidence that’</p> <p><b>How evidence is presented to the panel:</b> Institutionally determined evidence relevant to their mission (qualitative and/or quantitative data), including how they have addressed variability in subject performance: submission only.</p>
	<b>Graduate Outcomes</b>	<p><b>Addressing:</b> ‘What our students do as graduates and how we have supported these outcomes’</p> <p><b>How evidence is presented to the panel:</b> Nationally comparable metrics (provider and subject, including splits for both): Continuation, GO survey measures, LEO measures and differential degree attainment data.<sup>125</sup> Institutional response to the metrics, addressing subject variability and additional institutionally determined evidence: in the submission.</p>

## Recommendation

5. **The structure of the framework** should be adjusted to improve:

- a. transparency about what is being measured
- b. its relevance to all institutions
- c. the balance between nationally comparable and institutionally determined evidence

We have proposed adjustments to the existing framework structure in Table 2. To incorporate the subject-level exercise (Recommendation 4) into the proposed framework, we also propose that variability in subject performance should be addressed under all four aspects. A summary of the proposed framework is:

Dimensions	Aspects	Evidence
Educational Experience	Teaching and Learning Environment	Institutionally determined evidence
	Student Satisfaction	Nationally comparable metrics and institutionally determined evidence
Educational Outcomes	Educational Gains	Institutionally determined evidence
	Graduate Outcomes	Nationally comparable metrics and institutionally determined evidence

## National metrics in the revised framework

### Which ones?

We suggest retaining nationally comparable metrics in the revised structure of the framework. It is not our view that the articulation of challenges in the use of metrics means that they should be abandoned. The goal should be to identify the best available metrics, which can be affected by actions taken at an institution, and to use them appropriately and proportionately in a way that aligns with the principles of transparency, relevance and robustness.

Given the limited scope and time for this review, we have not undertaken a thorough review of the data sources used for the TEF metrics. An independent review of the data sources was undertaken by ONS in 2016 and the ONS has provided an update on that in their report for this review. The **choice of metrics used in the framework should be reviewed on a regular basis** in the periodic review suggested in Chapter 3 on 'principles'.

It is unrealistic to expect a set of perfect metrics for the measurement of such a complex process as the experience and outcomes of HE. We must accept some of the constraints of reality, such as the current inability to get full datasets on international students, but the impact of these limitations should be mitigated by maximising transparency and building understanding.<sup>126</sup> Also very importantly, we should **support developments in educational research** that will improve the metrics and inform future reviews of the assessment process.

In the proposed framework, **we have retained all of the existing metrics except the data on grade inflation**, as we are concerned that this does not meet the principle of relevance. Grade inflation, and its consequential changes to institutions' grade profiles, is a significant risk for the reputation of UK HE and is legitimately a concern for the regulator.<sup>127</sup> However, a revised TEF focusing on enhancing provision is not the best place for its investigation or control. Not all increases in grades are due to an institutional strategy of inflation. We should not risk conflating genuine increases in outcomes, which could be evidence of enhancing provision, with a more concerning strategy of promoting performance in league tables.

## Using metrics to form an initial judgement

Under the proposed framework, nationally comparable metrics are only used as evidence against two of the four aspects of assessment. It would therefore be inappropriate to form a single 'initial hypothesis' about a provider's overall rating using the metrics. **Whether and how the metrics might be used to form initial judgements for the aspects that do have national metrics (i.e. 'Student Satisfaction' and 'Graduate Outcomes') should be considered and tested when implementing the revised structure.** Any initial judgement will need to address the statistical concerns identified and recommendations outlined in Chapter 4 on 'the assessment process', as well as the relevant ONS recommendations listed in Appendix C. Consideration will also need to be given to the appropriate weight to apply to each metric. Any decisions made about this should be clearly documented, in line with the statistical improvements recommended in Chapter 4 and the principle of transparency recommended in Chapter 3.

## The four aspects

In setting out the four aspects of the proposed framework, we have drawn on the existing elements already in the TEF and made suggestions for improvements. We have provided a general sense of what each aspect would cover, focusing on the new elements or proposed changes, rather than specifying every detail. Many of the existing TEF elements would continue to apply. For example, we would expect providers to continue to address variability in performance across different student groups under all four aspects. The specific criteria against which judgements are going to be made for each aspect will need to be articulated, along with any other requirements that the DfE and the OfS may want to specify. Rather than trying to map the existing TEF criteria onto the proposed framework structure, we believe the **criteria should be re-designed** to align with the four proposed aspects.

As the criteria and requirements for the four aspects are developed in more detail, attention to the evidence about 'what works' will be important.<sup>128</sup> **Careful consideration should be given to the growing evidence base**, both domestically and internationally, about factors that influence the quality of HE provision and how these can be measured.

### 1. Teaching and Learning Environment

This aspect assesses excellence in the way an institution creates and supports the student's teaching and learning opportunities. We suggest a focus on evidence that addresses the provider statement: 'How we create an excellent environment for teaching and learning and how we know we are doing this well'.

Evidence against this aspect would be set out in the provider submission. We suggest the provider should be free to use whatever evidence they consider best demonstrates how they provide an educational environment that delivers excellence in line with their institutional mission. For example, a research-intensive university might include the impact of opportunities for students at all levels to be taught by leading researchers and understand how leading edge research takes place. A provider with significant distance learning might include the impact of their online support.

An institution may consider it relevant to describe the impact of the way they support and reward staff for excellent teaching, and the methods they use to assure themselves of the quality of teaching and other learning opportunities. This could include the way they use evidence to design, assess and improve the quality of their degree programmes. They could include data such as the proportion of staff that had undertaken training or development activities that year, how student engagement is developed and measured, or how recently a provider's assessment regulations had been updated.

**Where institutions report their own data, it should be verifiable and information about sample size and response rates should be included.**

Institutions might describe the success of methods they use to identify those students at risk and the impact of their staff and student wellbeing strategy and initiatives. In the call for views, we note that both 'staff conditions' and 'wider student experience' were suggested as improvements to the criteria, with a general view expressed that the criteria for the current TEF aspects of 'teaching quality' and 'learning environment' are defined too narrowly.<sup>129</sup> In defining this aspect in more detail, consideration should be given to the **balance between the information required for the panel to make a valid judgement and the level of flexibility needed to allow providers to present their particular missions.**

Under this and all of the other three aspects, we would expect institutionally determined evidence presented by providers to focus on demonstrating impact and effectiveness. This is in line with the existing TEF specification, which states:

---

**“The emphasis in the provider submission should be on demonstrating the impact and effectiveness of teaching on the student experience and outcomes they achieve. The submission should therefore avoid focusing on descriptions of strategies or approach but instead should focus on impact. Wherever possible, impact should be demonstrated empirically.”**

**TEF specification**

---

As part of the incorporation of a subject-level exercise into the provider assessment, providers should outline their processes for enhancement of the educational experience of all students across all subject provision. In doing so, they should address any variability in performance they have identified in their teaching and learning environment across different subjects and explain how they have addressed this.

## 2. Student Satisfaction

This aspect addresses the student's perception of the educational experience, with a focus on evidence addressing the provider statement: 'What our students think of our educational provision'.

The NSS metrics (at both provider and subject level) will be a significant part of the evidence for this aspect and will enable national comparisons to be made. The NSS measures student satisfaction and would be used here, not as a proxy for teaching quality, but to directly assess student satisfaction. The NSS has its critics, but it has a genuine importance as the best available national measure of the reported satisfaction of students.

Institutions should use the submission to provide context for their performance in the NSS metrics at both provider and subject level. In line with the focus on enhancement and the incorporation of a subject-level exercise into the provider-level assessment, institutions should address variability in subject performance and their performance in the splits by student characteristics.

Institutions may have other data that contributes to understanding what their students think of their educational provision. Many providers have ongoing assessments of student satisfaction that have the benefit of providing real-time data. In their submissions, institutions should be free to add to the NSS data if they wish, provided the data is verifiable with sample size and response rate information provided.

### 3. Educational Gains

This aspect is about the educational outcomes of students, with a focus on evidence addressing the provider statement: ‘What our students gain from their educational experience and how we evidence that.’

Providers should be able to articulate what they expect their students to learn and gain from the particular educational experience that they provide. This might include their knowledge, skills, experience, readiness for work or further study, personal development and resilience. These educational outcomes will be conceptualised differently in different institutions.

Some institutions refer to the ‘learning gain’ of their students. It is clear from the extensive work of the recent learning gain programme run by the OfS (and before that the work of the Higher Education Funding Council for England) that different institutions and different disciplines conceptualise and measure learning gain in very different ways.<sup>130</sup> The learning gain pilots have established a variety of examples for how different institutions have measured learning gain,<sup>131</sup> but have not been able to identify a single nationally comparable measure.<sup>132</sup>

In the proposed framework, we have chosen not to label this aspect ‘learning gain’ since there are significant challenges in the definition and measurement of the concept. But the concept is important and although there is no single nationally comparable metric of learning gain, each provider should be able to demonstrate how it knows that it is delivering what it promises to its students in terms of educational development. Under this aspect, each provider would be expected to demonstrate how, within their own particular mission, they articulate and measure (quantify if possible) the educational gain that they aim to provide for their students.

In line with the recommendation that a subject-level exercise is incorporated into the provider-level assessment, this should include how they are addressing any variability in performance they have identified in delivering successful learning and educational outcomes for their students across different subjects.

Incorporating ‘Educational Gains’ into the assessment framework is important to increase the focus of the exercise on learning (not just teaching) and allow institutions to demonstrate excellence that is specific to their mission. We recommend that ‘Educational Gains’ should form part of the revised framework structure.

We think its inclusion will provide the motivation and framework for further developments in this important area. Despite the difficulties in developing a national measure of learning gain, the learning gain pilots have provided insights into ways that institutions can effectively measure learning gain in their own context. More work is needed to continue development in this area. We are aware there is already academic research into learning gain and more broadly, different ways to conceptualise and measure student learning. We encourage a close working relationship between those academic projects and the DfE and the OfS to support developments in this area.

### Recommendation

6. Each institution should be expected to demonstrate how, within their own particular mission, they **articulate and measure the educational outcomes and learning that they aim to provide for their students**. In our proposed framework structure, we have incorporated this by having 'Educational Gains' as one of the four aspects of assessment.

## 4. Graduate Outcomes

This aspect is about the educational outcomes of students, with a focus on evidence addressing the provider statement: 'What our students do as graduates and how we have supported these outcomes'.

Higher education leads to multiple benefits for graduates. Literature suggests that this includes benefits to society, including improved social cohesion, social mobility and political stability, as well as benefits to individuals, such as improved life expectancy, life satisfaction and health behaviours.<sup>133</sup> This is all in addition to higher earnings. Regrettably, data does not exist on graduates for all of these different variables and even if it did, attribution back to the influence of a HE institution would be challenging.

The best data currently available for measuring graduate outcomes relates to employment. While we heard some dissatisfaction from institutions about using employment data, research shows that employment is important to students.<sup>134</sup> The national metrics currently related to employment are based on data from the Destination of Leavers from Higher Education (DLHE) survey (to be replaced by the Graduate Outcomes (GO) survey) and LEO. Given the influence of regional factors on salary levels, it is our view that in continuing to use this data to assess graduate employment outcomes, regional differences in labour markets should be taken into account. We understand this has not been possible to date, but that the geographical location of graduates has recently been linked to the LEO data.<sup>135</sup> We consider it essential that work to incorporate this data into the graduate outcome metrics in TEF should be prioritised, so that the next round of TEF assessments can include employment and salary metrics that take into account the region of employment.

Despite the challenges, we think it is important to continue to measure the employment and earnings of graduates. But this should be done against the recognition that this is only a partial measure of graduate outcomes. We recommend that more effort is made to find nationally comparable measures that go beyond employment to complement the existing metrics. We acknowledge that this will be challenging, but it is a project worth undertaking. As a start, further work should be done on how the questions in the new GO survey are used. There are questions in the new survey about how meaningful graduates find their work or further study and whether it utilises what they learnt from their degree, their subjective view of wellbeing, and how likely they would be to recommend their provider to others. These questions are optional for students to complete and some are only included if providers choose to do so. A summary of the specific questions and type of responses available for these questions is shown in Appendix D. These questions assess more nuanced aspects of the concept of graduate outcomes, with the questions about ‘reflection on activity to date’ likely to be the most relevant. **We suggest that these broader questions in the GO survey become mandatory** and that work continues to determine the utility of these measures.

Under this aspect, the graduate outcome metrics from the GO survey and LEO should also be considered alongside the continuation metric and data on differential degree attainment. Metrics should be at both provider level and subject level. While we have proposed including all metrics other than the NSS under this aspect to maintain a clear distinction between aspects with nationally comparable metrics and those without, we are least confident about the position of continuation within this aspect. While it is a necessary precursor to graduation, it is not strictly a graduate outcome and further testing may find it fits better in a different aspect.

The national metrics will be a significant part of the evidence for this aspect and will enable national comparisons and benchmarking to be made. Institutions would use their submission to respond to their performance in these metrics. In addition to addressing their performance in the splits by student characteristics, providers should also address variability in performance that may be present in their subject outcome metrics. This is part of the integration of the subject-level exercise into the provider-level assessment.

In their submission, providers should also be invited to add other outcome measures that are relevant to their own context. For example, if large proportions of an institution’s graduates gain employment overseas, this will not be recorded in the national data and the method used by the institution to monitor its own graduate employment could be included for consideration, even if national comparisons cannot be made. Similarly, many graduates do not go into formal employment but are in a field of work that meets the mission of their institution and their learning outcomes. Institutions should be able to add data that helps the panel to make an informed judgement about the success and impact of their overall outcomes.

### **Recommendation**

#### **7. In assessing graduate outcomes:**

- a. Nationally comparable metrics should not be restricted to employment and earnings. Broader outcome metrics should be developed and use made of other questions in the Graduate Outcomes survey.
- b. Metrics used to assess employment and earnings should control for regional differences in the location of graduates’ employment. Location of employment should be used as a benchmarking factor or in creating the metric.

## The submission document

### Structure is needed

The proposals above for adjustments to the framework, including incorporating the subject-level exercise into the provider-level assessment, place more emphasis on the submission. It will be important that submissions are structured to give panels all the information they need to make robust judgements against the criteria that are developed for all four aspects of the framework. To achieve this, a standard submission structure should be developed, drawing on the proposed framework outlined in Table 2 and used by all institutions. Care should be taken in designing the structure to ensure that this does not result in submissions being a 'tick box' exercise.

A standard structure would help panels to assess submissions in a more consistent way, improving transparency and robustness of the process. It would also help to address some of the disadvantage felt by smaller providers with fewer resources.

There will need to be **in-depth training for panellists** to ensure they are able to understand and interrogate effectively both the qualitative and quantitative data provided in submissions.

Given there would be greater weight placed on the submissions, it is important that the content of submissions can be relied upon by the panel to provide accurate information. To reassure the sector and the public that this is the case, we suggest an **audit of submissions** similar to the audit process for impact case studies in the REF.<sup>136</sup>

### Students should have greater input

To increase the student voice, the student body should be given the opportunity to provide direct input into the evidence base considered by the panel. While the student declaration being tested in the subject-level pilot goes some way to addressing the issues of student engagement, it does not do enough to include the student voice into the assessment process. As well as commenting on how they were involved in the TEF process, students should be given the opportunity to comment on their educational experience and outcomes, offering their own perspective and evidence on the performance of the institution.

We recommend that the student body should have the opportunity to write about their experience against all four aspects of the framework in a separate, standalone, structured submission. Their submission could include both qualitative and/or quantitative evidence and should be given to the panel alongside the provider submission to be used as additional evidence for each aspect. In line with incorporating the subject-level exercise into the provider-level assessment, students should also comment on variability in subject performance and how the institution engages its students to drive enhancement across all areas of provision. **The amount of institutional data and information that the student body receives should be given careful consideration** to ensure they are able to make informed comments in their submission.

We recognise that students at some providers may not want to input in this way, especially if there is no central student body to co-ordinate student input. **Early testing with student bodies** will be necessary to guide the development of this recommendation and arrive at the best way to provide an independent student submission.

## Recommendation

### 8. **The submission process** should:

- a. have a standard structure for submissions that is used by all institutions
- b. enable the student body to contribute their own written input that reflects their view of the institution's performance in all aspects of the revised framework, through an independent structured submission

## Developing the subject-level exercise

In setting the general direction for a revised TEF, in which a subject-level exercise is fully integrated into the provider-level assessment, we are emphasising the importance of addressing subject variability in delivering enhancement of HE provision. We consider that the exercise should keep a focus on subject performance and enable the panel to assess the quality of institutional attention given to the variability in subject performance.

We are not formally recommending the detail by which this should be done as it is outside the scope and timescale of the review. We have however, given some initial consideration to possible approaches based on what providers, particularly senior team members responsible for student experience and outcomes, have said might be helpful. We also explored preliminary ideas for a subject-level exercise at our session with AdvanceHE's PVC Network. Much more development work is needed to ensure the most effective subject-level exercise is implemented, but we make the following proposals as a starting point for the DfE and the OfS to test:

- **Subject-level metrics** – Providers are given the full set of subject-level metrics, including both benchmarked and absolute data and all splits, similar to the data given to providers in the 2018-19 pilot. While we recognise that the splits in the subject-level data may involve small numbers, we consider that there is value for enhancement in sharing these with providers in the absence of subject-level ratings. Limitations of the data, such as the impact of small numbers, should be made clear. At least a subset of the subject-level metrics would also be provided to panels to inform their assessment.
- **Identifying variability in subject performance** – There is a major piece of development work to establish the best way to identify an institution's higher and lower performing subjects which should be addressed. We see three possible ways to do this, each of which would have strengths and weaknesses and which could be used individually or in combination:
  - **OfS:** Based on both absolute and benchmarked performance in the metrics, the OfS could specify, for each institution, which subjects need to be addressed. This would occur before providers and the panel see the metrics.
  - **Panel:** The panel could use the metrics to identify the higher and lower performing subjects at the provider. The panel would then expect to see these subjects addressed in the submission under each of the four aspects.
  - **Providers:** It could be left to the institution to identify the subjects it determines to be stronger and weaker, with a requirement that they explicitly set this out and provide explanations.

- **The submission** – The provider submission should be required to discuss how they are addressing their lower performing subjects and how they are sharing best practice from their higher performing subjects. They should be invited to explain the variations in performance in the subject-level metrics and the systems they have in place to identify excellence in provision and address weaker areas. In the proposed framework set out above, we have incorporated this by setting out an expectation that providers will address variability in subject performance under all four aspects of assessment.
- **Subject categorisation** – Consideration should be given to providing institutions with more flexibility in how their subjects are defined in the data, to allow better internal comparisons to be made, provided that the data can be benchmarked.
- **Limiting factors** – To ensure that this subject-level exercise, as part of the revised TEF process, has maximum impact we suggest that failure to demonstrate that the institution is sufficiently addressing poor performing subjects should act as a limiting factor in the ratings. In extreme cases, there could be formal escalation procedures in place that may result in regulatory action. The panel could raise its concerns about a particular subject with the OfS for investigation, or make a referral to the relevant quality body if they are located in the devolved administrations.

There is much work to be done to develop and refine these ideas but we think these initial proposals show how a subject-level exercise incorporated within the provider-level assessment process has the potential to identify excellence and facilitate enhancement of subject provision across the range of HE providers in the UK.

## Comparing the current and proposed framework

The diagram in Appendix E demonstrates how the current TEF structure compares to the framework structure proposed in this chapter. It also incorporates the other recommendations made in this review.

---

# Chapter 6: The rating system



## Current rating system

Currently, the TEF assessment process results in each provider being awarded a single rating of Gold, Silver or Bronze. There is also a Provisional rating, which is given to providers that apply to TEF but do not have enough data to be fully assessed. The rating descriptors, as set out by the OfS, are:<sup>137</sup>

- **Gold:** A provider is awarded Gold for delivering consistently outstanding teaching, learning and outcomes for its students. It is of the highest quality found in the UK.
- **Silver:** A provider is awarded Silver for delivering high quality teaching, learning and outcomes for its students. It consistently exceeds rigorous national quality requirements for UK HE.
- **Bronze:** A provider is awarded Bronze for delivering teaching, learning and outcomes for its students that meet rigorous national quality requirements for UK HE.
- **Provisional:** Provisional awards are given to participating providers that meet national quality requirements, but do not yet have sufficient data to be fully assessed.

## What we heard

### A single rating is over simplified

While a single rating was supported by some groups for its simplicity, the more common view was that a single rating risks over simplifying the outcome. The UCAS survey found that the majority of applicants (67%) thought a single rating made TEF information easy to use<sup>138</sup> and 65% of the 17 FECs that responded to the call for views thought a single rating met the purpose of TEF.<sup>139</sup> However, across all other groups, we heard strong views that a single rating with only three categories provides insufficient detail. The majority (64%) of respondents to the call for views thought that the purpose of TEF is not met by awarding a single rating. This was even higher (70%) for the students and the student bodies that responded.<sup>140</sup>

The most common reason given for concern with a single rating was that it is too blunt to reflect the complexity of the educational provision that is being assessed in TEF.<sup>141</sup>

### Three categories of rating are not enough

The limited number of rating categories (three categories: Gold, Silver and Bronze) was criticised for masking a wide range of performance within each category.<sup>142</sup> Those at the top of a category are seen to be disadvantaged in the presentation of their performance while those nearer the bottom were seen as benefiting. We also heard concern that having only three categories led to significant 'cliff edges' between the ratings.<sup>143</sup> It was perceived that small increments in performance, or a slight change in the judgements of panel members, could move an institution into a very different position (e.g. from Silver to Bronze) with significant impact for the provider.

We heard a great deal from all sources about the desirability of the TEF outputs providing more information about an institution's performance. Many called for greater granularity in the ratings, believing it would reduce the impact of cliff edges and provide better information about performance.<sup>144</sup> One common suggestion was that there should be a larger number of categories in the rating scale.<sup>145</sup> Another was that ratings should be given for sub-categories (such as the three aspects of quality currently assessed in the TEF), either instead of, or in addition to, an overall rating.<sup>146</sup> This quote typifies this view:

---

**“Ratings could be given for each aspect of quality rather than just a single rating, in a similar way as the REF offers multiple outcomes, allowing the complexities of teaching and learning to be better demonstrated and understood and outcomes to be more nuanced.”**

**Representative organisation<sup>147</sup>**

---

In addition to having more detail in the rating system, some respondents also suggested that more detailed feedback from the assessment process about their strengths and weaknesses would be helpful to inform their enhancement agenda.<sup>148</sup>

## The rating names are not appropriate

We heard strong concerns about the names of the ratings – Gold, Silver and Bronze. In the call for views, more than two-thirds (70%) did not agree that the purpose of TEF was met by the current rating names.<sup>149</sup> Gold, Silver and Bronze have allusions to the medals of the Olympic Games. This might suggest that they all represent significant success, but it seems this is not the perception they elicit when used in the context of TEF.<sup>150</sup> Despite the fact it is clear in the TEF literature that all TEF ratings indicate performance that meets or exceeds the UK quality baseline, Bronze seems to be viewed as indicating failure or substandard performance. This is evidenced not only by what we have heard<sup>151</sup> but also by how applicants interpret the ratings<sup>152</sup> and how institutions behave. Providers who have gained a Bronze rating are much less likely to advertise this in their promotional material compared to those with Silver and Gold.<sup>153</sup>

Rating our HE providers as Bronze, which is seen as poor quality or ‘failing’, is putting the high quality reputation of UK HE unnecessarily at risk. Our international conversations confirmed this, with interviewees suggesting that Bronze was often viewed as poor performance and that TEF ratings could damage institutions’ reputations internationally.<sup>154</sup> The British Council study also highlights concerns about the rating system not being well understood internationally. There was a lack of understanding internationally about whether there was something lower than a Bronze and what it meant if an institution wasn’t rated at all.<sup>155</sup>

## What we conclude and recommend

### Increasing the level of detail

We agree that a single rating does not do justice to the complexity of either the process of determining the TEF judgment or the nature of the HE provision that is being assessed. This is particularly the case given our recommendation that the primary focus of a revised TEF should be the identification of excellence and the enhancement of provision. A more granular rating system would provide more information about excellence and a better incentive to enhance, as there would be more opportunity to move between ratings. To move away from a single rating and increase granularity, we recommend that each of the four aspects of the proposed framework should be given a rating. This should be in addition to an overall provider rating. Continuing to have an overall provider rating is important to maintain a focus by senior management and governing bodies on identifying excellence and encouraging enhancement.

**Further development work will be needed to establish the best relationship between aspect ratings and the overall provider rating.** We are not recommending any particular formula, but our starting point would be that the overall provider rating is a holistic judgement, informed by the **four equally weighted aspect** ratings. Further testing would be needed to determine if equal weighting creates the right balance between the aspects. As set out above, we also propose that **key limiting factors** should be identified. This would provide a mechanism for incorporating the subject-level exercise, powerfully, into the provider-level process and ratings. Providers should be able to demonstrate they have mechanisms in place to identify strong and poor performing subjects and that enhancement interventions are in place and having an impact. Limiting factors would apply if the provider failed to demonstrate this. We suggest that if a limiting factor is applied to any one of the aspect ratings, it should also apply to the overall provider rating. The ratings achieved for each aspect could also act as a limit on the overall provider rating that can be achieved. Other factors might also warrant consideration as a limiting factor.

To further increase granularity, we recommend that a four-point rating system is used instead of the three ratings of Gold, Silver and Bronze. This, with the name changes proposed in the next section, should help to resolve some of the confusion about whether there is a rating 'below Bronze' as well as reduce the range of performance within each category. We are not proposing any particular distribution of the ratings. Further work will need to be undertaken to determine the required performance threshold for achieving each rating.

### Changing the rating names

We believe the names Gold, Silver and Bronze are not fit for purpose, as they are not appropriate for reflecting levels of excellence in HE. We are concerned that they may bring unnecessary risk to the reputation of UK HE, especially given the negative perceptions of Bronze. It is our view that all of the rating names should indicate levels of excellence or commendation that clearly meet or exceed the already high standards required by the UK quality baseline.<sup>156</sup>

We propose an alternative set of names that reflect a hierarchy of commendation but it is not in the remit or timescale of this review to test and validate these names. We consider them a starting point that should be **subjected to testing with all users**, including understanding how they will be perceived internationally.

In this review, we have focused on the Gold, Silver and Bronze rating names. We are not making a specific recommendation about the 'Provisional' rating name, but in line with the recommended principle of transparency, the DfE and the OfS may wish to consider an **alternative term to 'Provisional'** that more clearly communicates that these providers have not yet been assessed. For example, 'pending' or 'not yet assessed'.

## What we recommend

We therefore make the following recommendations:

- All providers who have undergone the TEF assessment process should be awarded:
  - an **institutional rating**
  - a **rating for each of the aspects being assessed** – in our proposed framework, these aspects are:
    - Teaching and Learning Environment
    - Student Satisfaction
    - Educational Gains
    - Graduate Outcomes
- The names of the ratings should reflect positively on the level of excellence identified across the provider. We propose the following names:
  - **Meets UK Quality Requirements**
  - **Commended**
  - **Highly Commended**
  - **Outstanding**

The fact that the lowest rating reflects the UK quality requirements makes clear that all levels of commendations are indications of meeting or exceeding the UK quality baseline and show how the levels of commendation are anchored. It means that if the panel does not identify excellence that meets its definitions for commendation, the provider will obtain a rating that indicates they meet the high quality standards expected of UK HE.

We also consider that ideally, these ratings would be **complemented by a narrative that offers more detailed feedback to providers**. This would support the enhancement agenda by providing information for providers on the panel's perceptions of their strengths and weaknesses. We understand, based on conversations with the OfS, that there are risks about consistency, burden on panel members and appeals that have limited the feedback currently provided in the 'statement of findings' that is published alongside TEF ratings. We hope that these concerns can be addressed and feedback given to providers.

## Recommendation

9. **The rating system** should be improved by:
  - a. Providing greater and more nuanced information. We propose that the overall provider rating is supported by ratings for each of the four aspects being assessed under the proposed framework.
  - b. Using rating names that make clear that the awards demonstrate excellence that meets or exceeds the UK quality baseline. We propose the names Gold, Silver and Bronze be replaced with 'Outstanding', 'Highly Commended', 'Commended' and 'Meets UK Quality Requirements'.

---

# Chapter 7: The name of the scheme



## What we heard

We heard much frustration across HE providers, applicants, students and sector bodies that the name ‘Teaching Excellence and Student Outcomes Framework’ does not adequately reflect what TEF really measures.<sup>157</sup> As set out in Chapters 4 and 5 on ‘the assessment process’ and ‘developing the framework’, the TEF metrics are not direct measures of teaching excellence and the way proxies are used is not transparent about what the metrics actually measure. The TEF does measure some aspects of student outcome, but some have said it is biased towards employment and salary data.

## What we conclude and recommend

The name of the scheme should be closely tied to its primary purpose. In line with our principles of transparency and relevance, we recommend that the name should be changed to reflect more accurately what a revised TEF will measure and assess.

We have recommended that the primary purpose of the scheme is to identify excellence and encourage enhancement of the educational experience and outcomes for HE students in the UK. As set out in the Chapter 2 on ‘purpose’, we intentionally use the term ‘educational excellence’ rather than ‘teaching excellence’. Our other recommendations also aim to broaden what is measured and assessed in order to arrive at judgements about educational provision as a whole. This covers both teaching and learning, as well as a broad range of both student and graduate outcomes. We recommend changing the name of the scheme to more accurately reflect this wider remit. We considered several options for a revised name and concluded that the scheme should continue to include the word ‘excellence’, but should also use the term ‘education’ instead of ‘teaching’. We therefore propose the name Educational Excellence Framework (EdEF).

### Recommendation

10. **The name of the scheme** should be changed to more accurately reflect what is being measured and assessed. Of the options we have considered, we propose the Educational Excellence Framework (EdEF).

---

# Chapter 8: Is it fair?



## Other matters the reviewer considers relevant

The terms of reference ask the review to report on any other matters that the reviewer considers relevant. We have chosen to consider whether TEF delivers effectively for everyone across our diverse HE sector. We encouraged respondents to our call for views and participants in listening sessions to reflect on whether there were certain types of students, provision or providers that were disproportionately advantaged or disadvantaged by the current design of TEF and which might therefore raise questions about the reliability and validity of the overall ratings.

## What we heard and how we have responded

### Different providers have different missions

We heard a concern that TEF does not adequately reflect the different types of HE providers in the UK and their diverse range of missions. There is a perception that TEF gives an unfair advantage to institutions with a more traditional HE offering.<sup>158</sup>

We have recognised this concern in forming the recommendations of this review. The proposed framework will increase the prominence of institutionally determined evidence and data. While national comparisons should still form a core part of the process, greater emphasis on institutional measures recognises that excellence of all forms should be rewarded wherever it is found. In particular, the proposed inclusion of the 'Educational Gains' aspect (as one of four aspects of assessment) would allow providers to demonstrate how, within their own particular mission, they articulate and measure the educational outcomes and learning that they aim to provide for their particular students.

### Size and level of resource of different providers

Smaller providers and those with small HE provision feel disproportionately disadvantaged by the TEF. Not only do they have more limited staff resources to work on the TEF, they are more likely to be vulnerable to the statistical issues arising from small numbers and non-reportable metrics.<sup>159</sup> This is particularly an issue in subject-level TEF where the small numbers problem also affects large institutions where they have subject categories with a small number of students. We have considered the problem of small numbers in forming several of our recommendations.

The issue of small numbers and non-reportable metrics is one of the main concerns that we highlight in our recommendation about statistical improvements. It is also one of the key drivers behind our recommendation about incorporating a subject-level exercise into the provider-level assessment process. By not rating subjects, we significantly lower the risk of placing too much weight on metrics that contain small numbers or non-reportable metrics. This, combined with an increased prominence of institutionally determined evidence, should reduce the disadvantage felt by providers with small numbers.

The move to a subject-level exercise incorporated within the provider-level process should also help to minimise the administrative burden felt by providers with limited resources. We expect our recommended approach for a subject-level exercise to result in a lower burden than the model of subject-level TEF currently being piloted. This also should help to minimise the burden of the TEF for all providers, but with particular impact for those with more limited resources, where we heard that multiple responsibilities often fall to one person.

## Limitations of the metrics for particular student groups

Some providers felt they were disadvantaged because they have a large proportion of students who are not captured in the metrics or are not well represented by the metrics.<sup>160</sup> These concerns arise due to limitations with the nationally comparable data used to generate the metrics. We have identified the following limitations in the data:

- international students are not included in the continuation or employment metrics
- benchmarking by POLAR, which is a measure of educational disadvantage, does not fully account for wider aspects of socioeconomic disadvantage
- the continuation metric is less relevant and potentially inappropriate for some part-time students
- employment metrics may not capture the full range of employment outcomes and other wider beneficial outcomes that part-time and mature students aim to achieve
- the definition of 'higher study' does not capture study by students who choose to go on to certain highly skilled professions

It is unrealistic to expect the data to be perfect and there will always be constraints in obtaining nationally comparable data and using them to form metrics. We should, however, do what we can to mitigate the impact of these limitations on particular providers by maximising transparency. Under our recommended principle of transparency, these limitations should be clearly communicated to everyone who is expected to use the TEF metrics. For panels, to aid full understanding, specific training will be needed.

Full transparency should also apply to other limitations of the data, such as the time lag issue and broader concerns raised in our recommendation about statistical improvements. We would **expect these limitations to be considered as part of the recommended process of periodic review**, as developments in the data over time may reduce some of the concerns and limitations.

While we are not able to solve these problems with the metrics, some of the recommendations and proposals made in this review may help to reduce their impact:

- The proposals to increase the prominence of institutionally determined evidence gives providers greater opportunity to highlight specific student groups that might not be accounted for in the national data.
- The inclusion of the 'Educational Gains' aspect would enable institutions to demonstrate how their approach to learning adds value to specific student groups.
- The recommendation that outcome metrics should be broadened would enable institutions to be evaluated on more than just employment outcomes.

We also understand that the OfS is looking at how best to address the issue of how to define 'higher study' and has been making more use of Indices of Multiple Deprivation<sup>161</sup> alongside POLAR in the subject-level pilots.

## Geographical location of graduates

As set out in Chapter 4 on 'the assessment process', there is widespread concern that the region in which students gain employment is not taken into account in the TEF metrics. This is of particular concern in relation to the LEO salary metric, as it may disadvantage providers whose students choose to find employment in regions where average salaries are below the national average.

To address this, we are recommending that the metrics used to assess employment and earnings should control for regional differences in the location of graduates' employment. Location of employment should be used as a benchmarking factor or in creating the metric. We discuss this in more detail in Chapter 5 on 'developing the framework'.

## Providers in devolved administrations

There are a number of issues for institutions in the devolved administrations when it comes to the TEF. Firstly, and very significantly, they are subject to different quality assurance processes and different regulatory regimes. Providers based in Scotland, Wales and Northern Ireland can choose to participate in the TEF if consent has been given by the relevant devolved administration. We heard a general concern that since the labour market conditions in the devolved administrations are different to the rest of the UK, their providers are particularly disadvantaged on the employment and salary outcome metrics.<sup>162</sup> Accounting for the geographical location of graduates will address this particular concern. But the challenge of being in different administrations with different patterns of regulation is beyond the scope of this review. It will be important that close contact and regular communication occurs between policy leads across England, Scotland, Wales and Northern Ireland to ensure that any future changes do not inadvertently exacerbate the inevitable challenge to UK HE of the different political and administrative pressures.

## Absolute performance

The most polarised views that we heard about TEF concerned the use and prominence of absolute values in the assessment process.<sup>163</sup> It is our view that while benchmarking has a value in making important comparisons across the sector, absolute performance is also an important part of understanding an institution's excellence and the overall performance of the sector as a whole. To make fair judgements about an institution's excellence, student intake characteristics should be taken into account (i.e. data should be benchmarked) but panels should also have clear information on absolute performance to inform the overall assessment. In doing this however, if there is a conflict between absolute and benchmarked performance, benchmarking should continue to take precedence over absolute values. More detail about this recommendation can be found in our response to the ONS report in Appendix C.

---

# Chapter 9: Is it worth it?



## The impact of TEF and whether it is in the public interest

The review was asked through its terms of reference to make an assessment of the impact of TEF on the ability of HE providers to carry out their functions – including those relating to teaching and research – and whether, more broadly, the scheme is in the public interest.

In essence, the whole of this review relates to the question of ‘is it worth it?’ and we had that question in mind in developing all of the recommendations. We have therefore considered the impacts of TEF in several earlier chapters of this review. In this final chapter, we draw together what we heard and know about the various impacts of TEF that have not been covered in detail elsewhere, and make an overall assessment about whether TEF is in the public interest.

Higher education in the UK has significant economic and social value. This value to the UK was set out by the independent panel to the Review of Post-18 Education and Funding<sup>164</sup> as follows:

---

**“Nationally, the UK university sector contributed £21.5 billion to GDP in 2014–15, representing 1.2 per cent of the UK’s GDP.<sup>165</sup> In 2017/18, the academic workforce totalled nearly 212,000 with a further 218,000 employed as non-academic staff.<sup>166</sup> In 2016, total revenue from the 460,000 international HE students at UK HEIs totalled £11.9bn.<sup>167</sup>**

**Moreover, recent analysis by London Economics suggests the international students from a single cohort who obtain good jobs and remain in the UK will generate over £3 billion in tax, over a ten year period.<sup>168</sup> By any criterion, therefore, higher education is an important sector of the economy.**

**Many universities also make a considerable civic contribution. They are torch carriers for their community’s economic, cultural, social and environmental development, often in partnership with their local authorities and local businesses.<sup>169</sup> The recent Civic University Commission report stressed the importance of this role: “it is clear that universities are – alongside the NHS and local authorities – one of the key institutions in and for local society, and especially in many economically vulnerable places and this role will become more important”.<sup>170</sup> This is difficult to quantify but estimates put the value of pro-bono work by HEIs through public initiatives, knowledge exchange and participation in science and cultural events, charitable endeavours and social enterprise at over £3 billion in 2017.”<sup>171</sup>**

---

In addition to the economic value to the UK, there is a consequent international value of our HE provision, as many of our HE students choose to live and work overseas. This leads to social, cultural and reputational value that is not easy to quantify.

This value, both nationally and internationally, places UK HE firmly in the public interest. If TEF, through identifying excellence, is able to play a part in promoting the quality of UK HE internationally, it will be contributing to that public interest. If TEF is able to assure the UK public and our international partners that our HE provision is robustly scrutinised in a way that supports improvements in that provision, then provided the costs are proportionate, it will be in the public interest.

In the scope of this review we are not able to perform a full cost benefit analysis but we have given careful consideration to the nature of the costs and benefits and make a set of judgements on the public interest of TEF. We are very aware that this is not a pure science and although we have identified some commonalities in views of the impacts of TEF, we know there are some strong differences in views across the sector. This review must make a judgement, on the best available information that we can access, for the value of TEF to the sector as a whole and the general public interest.

We will consider firstly the public benefit of the aims of TEF and then its delivery.

## Are the aims of TEF in the public interest?

TEF currently aims to fulfil a number of purposes. The government's TEF policy specification lists four purposes, which are to:

- better inform students' choices about what and where to study
- raise esteem for teaching
- recognise and reward excellent teaching
- better meet the needs of employers, business, industry and the professions

These can be broadly categorised as either **providing information** for applicants and employers or encouraging the **enhancement of quality** in the educational provision.

While both of these aims have face validity as being in the public interest, we recommend being clear about a primary purpose that informs the way the TEF is developed.

For applicants, TEF is part of a complex landscape of data about institutions and their courses which contributes to the potentially life changing decision as to which subject to study and at which institution. As set out in Chapter 2 on the purpose of TEF, we consider that improving the accessibility of the complex range of information available to inform applicants' choice should be addressed by the OfS through its IAG strategy. Providing a single rating which amalgamates information in a standard way assumes that all applicants would weight different components of the educational experience in the same way. This is unlikely to be the case. Earnings outcomes, for example, may be more important for some applicants than others.

As outlined in previous chapters, the aim of identifying excellence and encouraging the enhancement of provision is important and **is not replicated in other parts of the regulatory framework in England**. We consider that while all the TEF information should be in the public domain, the student interest, and hence public interest, is best met by the primary aim of TEF being the enhancement of quality.

If the aim has a value to the public, the question then becomes: Does the *delivery* of TEF in its current form, with a provider assessment and proposed roll-out of subject-level TEF to all providers, meet that aim in a way that is in the public interest, with benefits that justify the costs?

There is no simple calculation that will answer this question. While we have estimates of the costs of the policy, we have no financial measures of either its benefits or any negative unintended consequences. So, the consideration as to whether the costs are proportionate involves judgement against qualitative measures.

To quantify where we can and to add to our understanding of the impact of TEF that is articulated in other chapters of this review, we have looked at updated cost estimates,<sup>172</sup> sought the views of leading experts in the sector (British Universities Finance Directors Group and Association of Heads of University Administration) and run a dedicated seminar session with a range of stakeholders exclusively focusing on the public interest.<sup>173</sup>

## The benefits of the current TEF

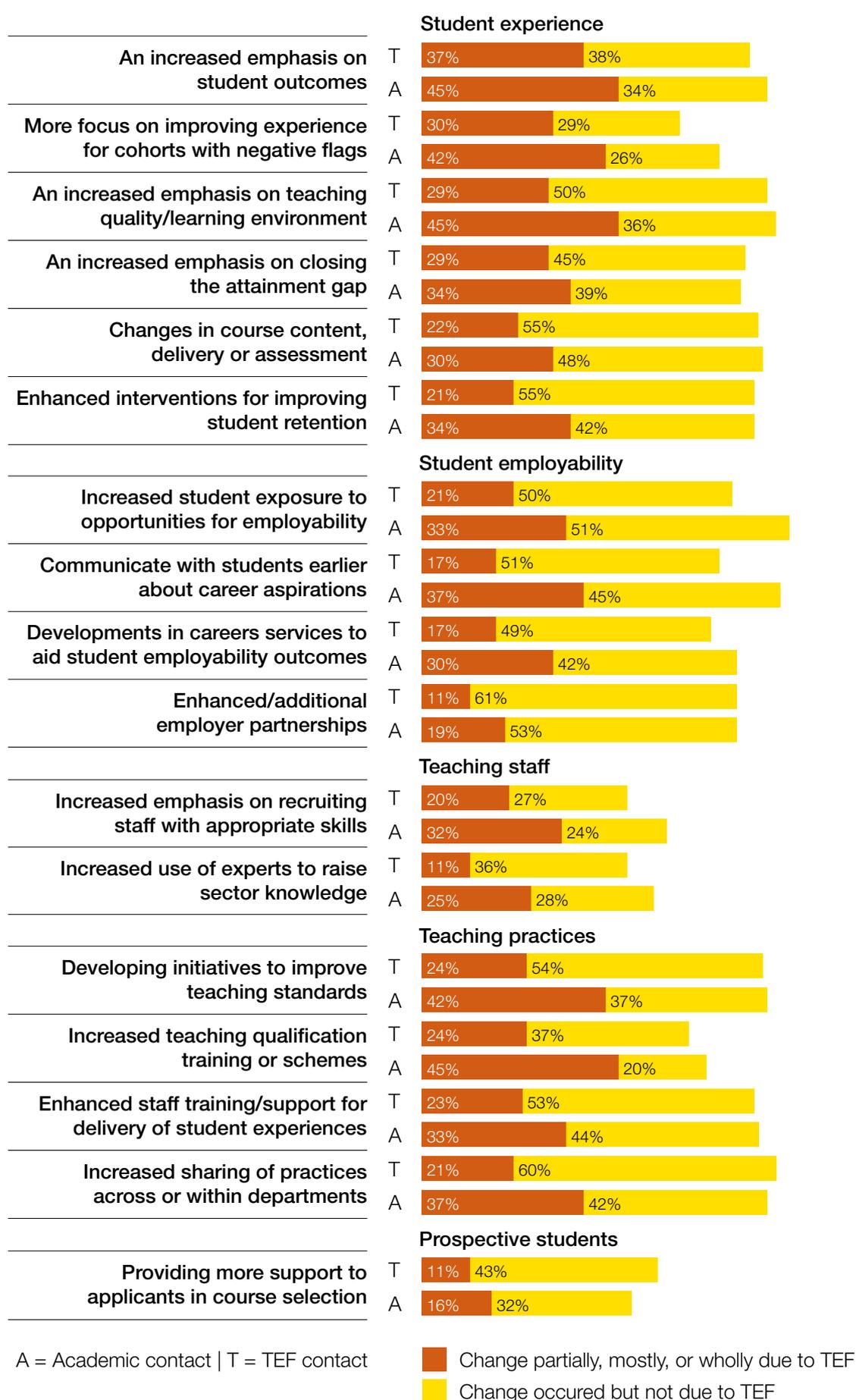
At the seminar on public interest, we heard views that TEF is already delivering value against the aim of identifying excellence and enhancing provision. Participants felt that TEF is focusing efforts within institutions on enhancement of teaching and learning, teaching quality, employability and student engagement. They also mentioned that governing bodies are more engaged in considering teaching quality and it is higher on their agenda.

As set out in Chapter 2 on ‘purpose’, these messages were also heard in our listening sessions and in responses to the call for views. In FE, where HE provision is often a relatively small part of the overall institutional provision, TEF has helped raise the profile and needs of HE with senior management. In research-intensive universities, where the REF has led to a focus on the drivers of research output and performance, TEF has helped to rebalance the importance of the educational dimension of the university’s mission.

This was not a universal view. A few seminar participants felt that the increased focus on enhancement was due to other factors such as higher fees, rather than a benefit of TEF itself and some respondents to the call for views<sup>174</sup> suggested that processes to enhance provision were already in place.

The recent independent evaluation of provider-level TEF, conducted by IFF Research, provides some insights about whether enhancement activities can be attributed to TEF.<sup>175</sup> The evaluation asked TEF contacts<sup>176</sup> and academic contacts<sup>177</sup> at providers about specific impacts, asking them whether change had occurred and whether this was due to TEF.<sup>178</sup> The evaluation had 311 responses obtained from 157 TEF contacts and 154 academic contacts (some academic contacts belonged to the same provider). This translated to 195 unique providers, which at the time of the research represented 41% of the provider population. For many of the positive impacts related to enhancement, around 20 to 40% of contacts said change had occurred partially, mostly or wholly due to TEF, with the percentage from academic contacts often being higher than for TEF contacts. For each of these impacts, there was another 20 to 60% that said change had occurred, but not due to TEF. Figure 2 demonstrates the positive impacts related to enhancement where change was reported to have occurred and the percentage that reported this being partially, mostly or wholly due to TEF.<sup>179</sup> For each impact, two percentage figures are reported – the first relates to the percentage of TEF contacts and the second relates to the percentage of academic contacts.

**Figure 2:** Positive impacts of the TEF reported by HE providers



**Source:** IFF Research on behalf of DfE (2019) Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape, student experience: figure 3.3, p36, student employability: figure 3.4, p38, teaching staff: figure 3.5, p40, teaching practices: figure 3.6, p42, student employability: figure 3.7, p44, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>

A survey undertaken by UUK in 2017 also supports the view that the process of compiling TEF submissions, including senior staff involvement, has contributed to greater engagement with teaching and learning strategies.<sup>180</sup> The UUK reported a high degree of confidence within the sector that TEF will increase institutional focus on teaching and learning.<sup>181</sup> As with the IFF evaluation, we must consider the level of attribution when assessing these benefits. We are not able to identify causality and different parts of the sector are likely to have different perspectives. The majority of respondents to the UUK survey (53%) reported that the changes that had occurred were already planned and TEF had no impact on them.<sup>182</sup> While they also found that no respondents had initiated a new programme of activity specifically to respond to the TEF, 22% said they had reviewed existing proposals to take account of TEF and 26% stated that they had accelerated existing programmes of improvement.<sup>183</sup>

We also heard at our seminar on public interest that benchmarked data is providing useful information into the impact of institutional strategies. Similarly, the split metrics were seen to offer valuable data on how well institutions are supporting disadvantaged groups. It was also suggested that the TEF was bringing greater credibility to research into education and pedagogy and that it promoted research informed teaching approaches.

There is a clear public interest benefit in increased attention within institutions to the quality of educational provision. While we can only attribute a proportion of the improvements to the TEF process, the positive impacts reported at this early stage of TEF's development suggest that TEF is playing a part in raising the profile and level of attention to teaching and learning across HE providers.

## Costs and unintended consequences of the current TEF

### Provider-level TEF

Any benefits need to be set against the costs that the exercise undoubtedly imposes. For providers, this relates to all the work needed to complete their TEF submission, which should include the opportunity cost of time that could be spent on other activities. As per the review's terms of reference, this includes the impact of TEF on the ability of HE providers to carry out functions such as teaching and research. For the regulator, the OfS, this relates to the costs of administering the scheme. The direct and opportunity costs of panel members' time is also a cost of the overall TEF process. In the absence of a full cost benefit analysis, we are not in a position to quantify and apportion costs to all of these activities, but we did look at available data for the scheme as a whole.

We asked the DfE to update their cost estimates to ensure we had costs that reflect the latest policy position for TEF. The updated cost estimates are based on a set of modelling assumptions, notably that a typical provider-level submission costs £20,000 for each provider to develop, and £11,000 for the OfS to assess (including panel member costs).<sup>184</sup> The actual costs will vary considerably by provider, and not surprisingly we heard various views about how high these costs are, but based on the average estimates by the DfE, the overall cost for the scheme over 10 years is estimated to be £65 million to £75 million. This range depends on whether TEF awards last for five or three years respectively. The full cost analysis by the DfE, including the full range of costs and a sensitivity analysis, is provided in the report at Changes to the Teaching Excellence and Student Outcomes Framework – updated cost estimates.

To contextualise the magnitude of these costs, it is helpful to consider them alongside the investment that is being made into the HE system by students and taxpayers. For students, this includes their tuition fees, which are currently set at up to £9,250 per annum in England,<sup>185</sup> and living costs such as accommodation and travel. For taxpayers, this is the level of public subsidy contributed by the government, which is estimated in England to be around £7.2 billion for the year 2018–19.<sup>186</sup> When looking at the cost to students and taxpayers together, the Institute for Fiscal Studies have estimated that under the current funding system in England, the total cost of funding each cohort of undergraduate students, including the cost of teaching and cost of living for more than 350,000 students, is around £17 billion.<sup>187</sup>

As well as the quantifiable costs, we heard in our session on public interest and in the listening sessions and call for views more generally, reports of some unintended and/or negative consequences which cannot easily be quantified. These include the impact of TEF on academics' time to conduct research and increases in administrative load. We considered using the Transparent Approach to Costing (TRAC) data<sup>188</sup> to investigate some of the reported shifts in relative spending on teaching, research and administrative activities. Unfortunately, TRAC data cannot easily be used in its current form to assess these shifts because:

- there is not yet enough data available to establish a robust or consistent trend analysis – there is only one year of data (2017–18) available since the first TEF ratings were awarded in June 2017 and there were changes to reporting standards just before TEF was introduced that make comparisons over time less reliable
- the data returns from providers do not separate out the administrative component of teaching and research costs
- variations in costs for teaching, research and administrative support are likely to be affected by a range of factors that are not easily separated

We have therefore not been able to undertake an analysis of TRAC data as part of this review. Once data becomes available over a longer period of time, there could be value in investigating whether the TRAC data can be used to evaluate some of the reported impacts of TEF on teaching and research activities.

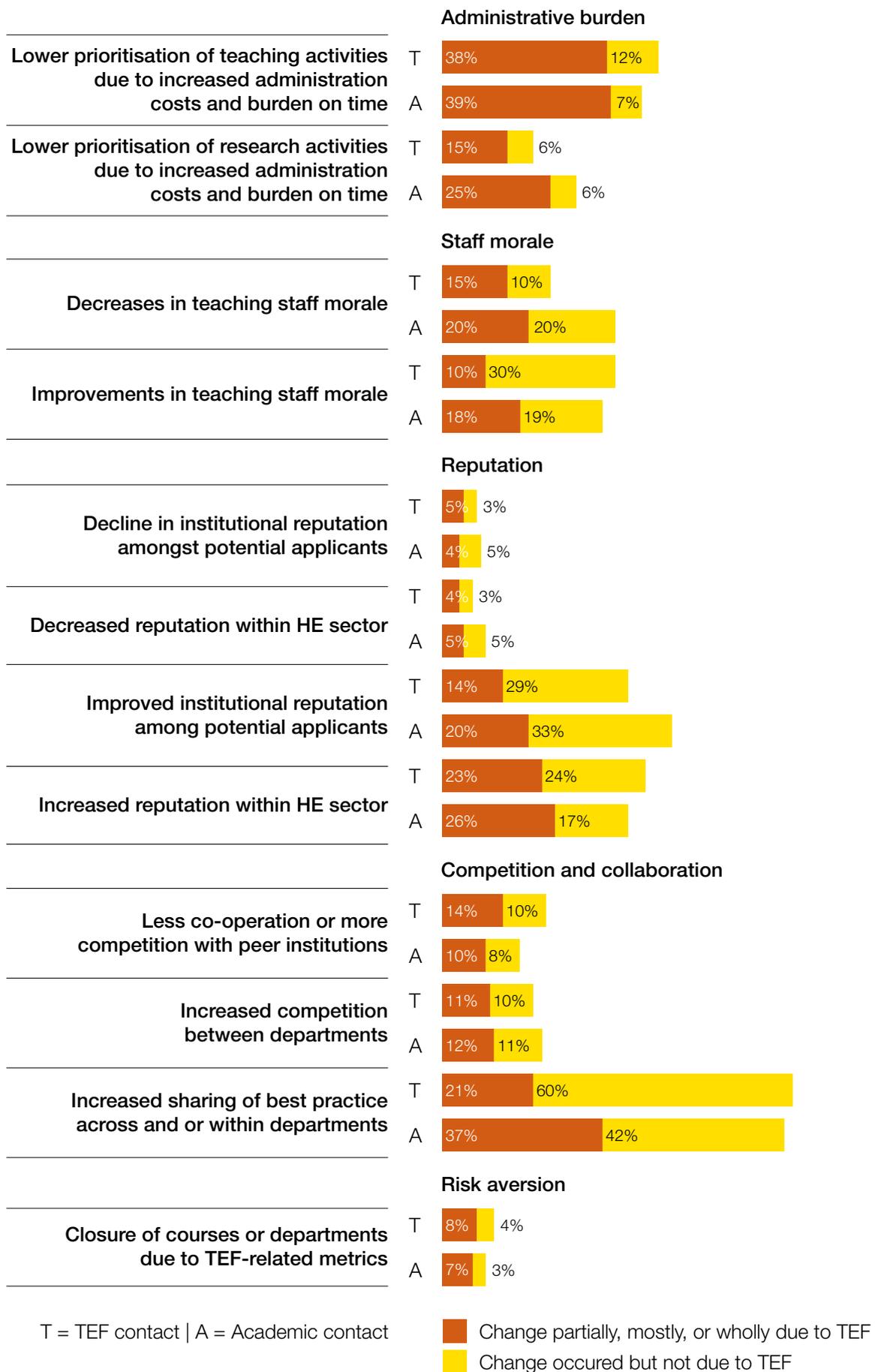
The best evidence currently available to assess the unintended and/or negative consequences of TEF is the findings from TEF research reports. We have drawn on the independent evaluation of provider-level TEF conducted by IFF Research,<sup>189</sup> the UUK's report to the independent review<sup>190</sup> and research undertaken by UCU.<sup>191</sup> The negative consequences of TEF reported in those reports are set out in the bullets below. As above, where we outline impacts from the IFF evaluation, we set out the percentage that reported that change occurred partially, mostly or wholly due to TEF. For each impact, two percentage figures are reported – the first relates to the percentage of TEF Contacts (T) and the second relates to the percentage of academic contacts (A). Note that we have not reported neutral impacts where the direction of the impact (i.e. positive or negative) is unclear and we only reported impacts where the percentage reporting an impact due to TEF was over 5%. The negative consequences include reports of:

- **Administrative burden** – Increased administration costs and burden on time, resulting in less attention and time for frontline teaching and research activities. In the IFF evaluation, lower prioritisation of teaching activities due to increased administration costs and burden on time was reported (T: 38%, A: 39%), as was a lower prioritisation of research activities for the same reason (T: 15%, A: 25%).<sup>192</sup> The UCU also reported an increased workload for academic and support staff.<sup>193</sup>

- **Staff morale** – Decreases in teaching staff morale (T: 15%, A: 20%), but this must be seen against reported improvements in teaching staff morale (T: 10%, A: 18%).<sup>194</sup> When the provider's TEF award was taken into account, IFF research reported that Gold providers were more likely to report an increase in teaching staff morale due to TEF while Bronze providers were more likely to report decreased morale due to TEF.<sup>195</sup>
- **Reputation** – Reputational damage was reported by some institutions who believe their reputation has suffered, which again seems influenced by the rating received.<sup>196</sup> While the IFF reported a small percentage of respondents indicating a decline in institutional reputation (among applicants: T: 5%, A: 4%, among the HE sector: T 4%, A: 5%),<sup>197</sup> more respondents reported an increase in reputation (applicants: T: 14%, A: 20%, HE sector: T: 23%, A: 26%).<sup>198</sup> Not surprisingly, when the provider's TEF award was taken into account, Bronze providers were more likely to report a decline in institutional reputation, and Gold providers an improvement.<sup>199</sup>
- **Competition and collaboration** – Concern that increased competition could lead to less collaboration within and between institutions.<sup>200</sup> In the IFF evaluation, less co-operation or more competition with peer institutions was reported (T: 14%, A: 10%), as was increased competition between departments (T: 11%, A: 12%).<sup>201</sup> However, we also note that a higher proportion reported increased sharing of best practice across and/or within departments. (T: 21%, A: 37%).<sup>202</sup> The UCU also reported the risk of increased competition rather than complementarity between TEF and REF activity.<sup>203</sup>
- **Risk aversion** – A potential for risk aversion in educational provision, leading to a uniform approach to learning and teaching and reduced innovation.<sup>204</sup> In the IFF evaluation, closures of courses or departments due to TEF related metrics were reported, but only by a small proportion of respondents (T: 8%, A: 7%).<sup>205</sup>
- **Teaching contracts** – Greater focus on teaching-only contracts. The UCU reported the concern that teaching-only contracts are increasing and may not have the same conditions as research-only contracts in all institutions. They suggested that this could be due to TEF, REF or a combination of both.<sup>206</sup> This, combined with the new inclusion criteria for the REF, may be changing the pattern of employment across research-intensive universities.

As we draw on three different research reports for the above list, it is difficult to present all of these consequences in a single figure. However, to offer a comparable presentation to the benefits section, we have summarised those from the IFF evaluation in Figure 3.

**Figure 3:** Summary of the consequences reported above from the IFF evaluation



**Source:** IFF Research on behalf of DfE (2019) Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape, administrative burden: figure 3.8, p46, staff morale: figure 3.6, p42, reputation: figure 3.8, p46 and figure 3.7, p44, competition and collaboration: figure 3.8, p46 and figure 3.6, p42, risk aversion: figure 3.8, p46.

We have also heard concerns, as set out in Chapter 6 on ‘the rating system’, that the Gold, Silver and Bronze rating system might be having a detrimental impact internationally, with Bronze in particular being seen as a barrier to the effective marketing of UK HE overseas.

## Subject-level TEF

We have set out our views on subject-level ratings in Chapter 4 on ‘the assessment process’. The move to subject-level assessment does have potential benefits, which include the value to providers of using subject-level data, particularly splits, to support their internal enhancement discussions. However, there are concerns about the costs and unreliability of proceeding with ratings at subject level. These include:

- The large number of smaller datasets at subject level, which leads to missing data and other statistical concerns, which we outline in our response to the ONS report in Appendix C.
- Retaining consistency of assessment across multiple panels, as the exercise is scaled up across all providers.
- Limitations of the CAH2 subject categorisation for ratings, which may constrain course development and inhibit further inter-disciplinary programmes.
- The cost and burden associated with subject-level TEF. Compared to provider-level TEF, the cost of subject-level TEF is about three times higher for each round of assessment and about 30% to 40% higher over 10 years. As set out in Chapter 4 on ‘the assessment process’, the average cost for a provider increases from £20,000 for provider-level TEF to about £57,000 for subject-level TEF. Over 10 years, the total present value of the cost increases from between £65 million and £75 million, to between £100 million and £110 million.<sup>207</sup> These are DfE estimates of the average costs, based on a cost study undertaken in the first subject-level pilot. In practice, as for the provider-level TEF estimates, the costs will vary considerably by provider. The full cost analysis by the DfE, including the full range of costs and a sensitivity analysis, is provided in the report at [Changes to the Teaching Excellence and Student Outcomes Framework – updated cost estimates](#).

We have indicated in the review that in the future delivery of TEF, these risks should be addressed by incorporating a subject-level exercise into the provider assessment and not making subject-level ratings.

## Balancing these observations to assess the public interest of TEF

As set out above, there is no simple calculation available to assess the public interest of the TEF. Weighing up all these factors leads to a judgement call. The benefit of the TEF in increasing attention to the quality of teaching and learning across our HE providers, and the consequent increased focus on enhancement activity, must be judged against the expected costs of running the exercise and the potential risks and unintended consequences.

At subject level, we believe the risks of proceeding with ratings outweigh the benefits at this stage in the development of the TEF. While we believe it is in the public interest to have a subject-level exercise, we do not think the risks can currently be mitigated sufficiently for it to be the public interest to continue with **ratings** at subject level.

At provider level, we believe the public interest case is much stronger. The estimated costs of provider-level TEF are material, at around £65 million to £75 million in present value terms over 10 years, or £6.5 million to £7.5 million on an annualised basis. Compared to the investment being made by both students and tax payers, which is around £17 billion for each cohort of students that starts their HE studies each year, we think the cost of TEF seems proportionate and could be justified by the benefits both to the students and the public of enhancing educational provision for undergraduate students.

We consider however, that improvements in the methodology must be made to deliver that public benefit. The recommendations in this review aim to improve transparency, relevance and robustness, reduce unintended consequences and deliver a framework for assessing excellence and promoting enhancement that is more squarely in the public interest. In terms of burden, we expect the proposed framework may cost slightly more than the current provider-level TEF, but should be lower than the cost involved in the move to full subject-level TEF. It is therefore our view that the cost benefit equation would be improved under the proposed framework.

In conclusion, we consider that if the challenges identified by this review are addressed, a provider-level TEF with a primary focus on identifying excellence and enhancing provision will be in the student and public interest.



# Appendices and supporting research reports

## Appendices

- Appendix A: Current TEF assessment process
- Appendix B: Charts showing the distribution of LEO salary metric flags by provider region
- Appendix C: Response to the ONS report
- Appendix D: Graduate Outcomes survey content and structure
- Appendix E: Comparison of TEF and proposed EdEF
- Appendix F: Further suggestions
- Appendix G: Glossary

## Supporting reports

These reports were commissioned by the TEF Independent Review and can be accessed online via the hyperlinks below.

Author	Title	Link
<b>TEF Independent Review</b>	An overview of the listening sessions informing the TEF Review	<a href="https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review">https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review</a>
<b>York Consulting</b>	Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF)	<a href="https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views">https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views</a>
<b>Office for National Statistics</b>	Evaluation of the statistical elements of the Teaching Excellence and Student Outcomes Framework. A report by the Methodology Advisory Service of the Office for National Statistics	<a href="https://www.gov.uk/government/statistics/evaluation-of-the-statistical-elements-of-the-teaching-excellence-and-student-outcomes-framework">https://www.gov.uk/government/statistics/evaluation-of-the-statistical-elements-of-the-teaching-excellence-and-student-outcomes-framework</a>
<b>British Council</b>	International perceptions of the Teaching Excellence and Student Outcomes Framework	<a href="https://www.britishcouncil.org/research-policy-insight/research-reports/independent-review-of-tef">https://www.britishcouncil.org/research-policy-insight/research-reports/independent-review-of-tef</a>
<b>Department for Education</b>	Changes to the Teaching Excellence and Student Outcomes Framework – updated cost estimates	<a href="https://www.gov.uk/government/publications/changes-to-the-teaching-excellence-and-student-outcomes-framework-tef">https://www.gov.uk/government/publications/changes-to-the-teaching-excellence-and-student-outcomes-framework-tef</a>
<b>Department for Education (in collaboration with UCAS)</b>	Research to support the Independent TEF Review: Surveys of HE applicants	<a href="https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants">https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants</a>
	Research to support the Independent TEF Review: Survey of HE careers advisors	<a href="https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-survey-of-he-careers-advisors">https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-survey-of-he-careers-advisors</a>

# Appendix A:

## Current TEF assessment process

The diagram in Figure 4 provides an overview of the current TEF scheme (and elements being piloted for subject-level TEF) and the process by which the ratings are determined. This shows that TEF draws on a mixture of quantitative and qualitative evidence. This includes measures drawing on existing quantitative data, all of which are gathered for other purposes, and a submission, which is written specifically to support the TEF process.

For more information about the TEF, please see:

- [OfS What is the TEF?](#) page for a brief overview of the TEF
- [OfS TEF information](#) pages for detailed information and technical documents
- [DfE TEF](#) page, including the TEF specification

A glossary of terms used in the diagram can also be found in Appendix G.

**Figure 4:** The current TEF assessment process and evidence base

### The TEF focuses on three aspects of quality

#### Teaching Quality (TQ)

#### Learning Environment (LE)

#### Student Outcomes and Learning Gain (SO)

There are 10 criteria (and 11 for subject-level) mapped to these three aspects

Student engagement with learning (TQ1)  
Valuing teaching (TQ2)  
Rigour and stretch (TQ3)  
Assessment and feedback (TQ4)  
Student partnership (TQ5)<sup>1</sup>

Resources (LE1)  
Scholarship, research and professional practice (LE2)  
Personalised learning (LE3)

Employability and transferable skills (SO1)  
Employment and further study (SO2)  
Positive outcomes for all (SO3)

### A three-step assessment process is undertaken by an independent panel

#### Step 1: metrics-based initial hypothesis

Quantitative evidence (a set of standard metrics and data) is considered by assessors to form an initial hypothesis of the rating of Gold, Silver or Bronze. This evidence includes: **contextual data about the location, size and student cohort at the provider and/or subject.**

#### Core metrics (produced by the OfS)

Teaching on my course – National Student Survey (NSS)  
Assessment and feedback (NSS)  
Student voice (NSS)<sup>1</sup>

Academic support (NSS)  
Learning resources (NSS)<sup>1</sup>  
Continuation – Higher Education Statistics Agency / Individualised Learner Record data

Employment or further study – Destination of leavers from higher education (DLHE)<sup>2</sup>  
Highly skilled employment or higher<sup>1</sup> further study (DLHE)<sup>2</sup>  
Sustained employment – Longitudinal Education Outcomes (LEO)<sup>2</sup>  
Above median earnings or higher<sup>1</sup> further study (LEO)<sup>2</sup>

Benchmarking: Very High and Very Low absolute values and split metrics are used to highlight positive and negative performance against the core metrics.

#### Supplementary data (produced by the OfS)

In the subject-level pilots: grade inflation data and data on differential degree attainment by student background are being tested (at provider-level only)

For provider-level TEF: grade inflation data and the two LEO-based metrics are considered as supplementary evidence (in step 2 alongside the submission)

1. New elements being tested in the subject-level pilot.
2. The subject pilot tested the two LEO metrics as Core metrics, and omitted Employment or further study. Provider-level TEF uses only the two DLHE metrics as Core metrics.

#### Step 2: additional evidence to test initial hypothesis

Contextual data about the location, size and student cohort at the provider and/or subject level

Submission: a document written by the provider, with student involvement, that includes additional evidence (qualitative and/or quantitative) against the criteria, is considered.

Supplementary data (produced by OfS):

- in the subject-level pilots; grade inflation data and data on a differential degree attainment by student background have been tested (at provider-level only)
- for provider-level TEF; grade inflation data and the two LEO-based metrics are considered as supplementary evidence

#### Step 3: holistic judgement

Assessors review all evidence and make a best-fit judgement against the rating descriptors.

### The outcome is one of these ratings and a statement of findings



\*Given to providers that meet the UK quality baseline, but do not yet have sufficient data to be fully assessed.

# Appendix B:

## Charts showing the distribution of LEO salary metric flags by provider region

As noted in Chapter 4 on ‘the assessment process’, while the geographical location of **graduates** is not yet included in the TEF metrics, we can identify the impact of the location of the **institution** on the LEO metrics used in TEF. The charts in this appendix demonstrate how the location of providers can affect the LEO metrics being used in TEF.<sup>208</sup> This analysis excludes providers from the devolved administrations because very few providers from the devolved administrations chose to participate and therefore their metrics data may not be representative of all providers in those regions.

The LEO salary metric is the proportion of graduates with above median earnings (for 25 to 29 year olds) or in further study. In the TEF, flags are used to indicate if the metric is materially and statistically significantly above benchmark (positive flag) or below benchmark (negative flag). Metrics that are similar to or on the benchmark are not flagged (in this analysis, these are presented as neutral). Metrics may also be non-reportable for a number of reasons.<sup>209</sup>

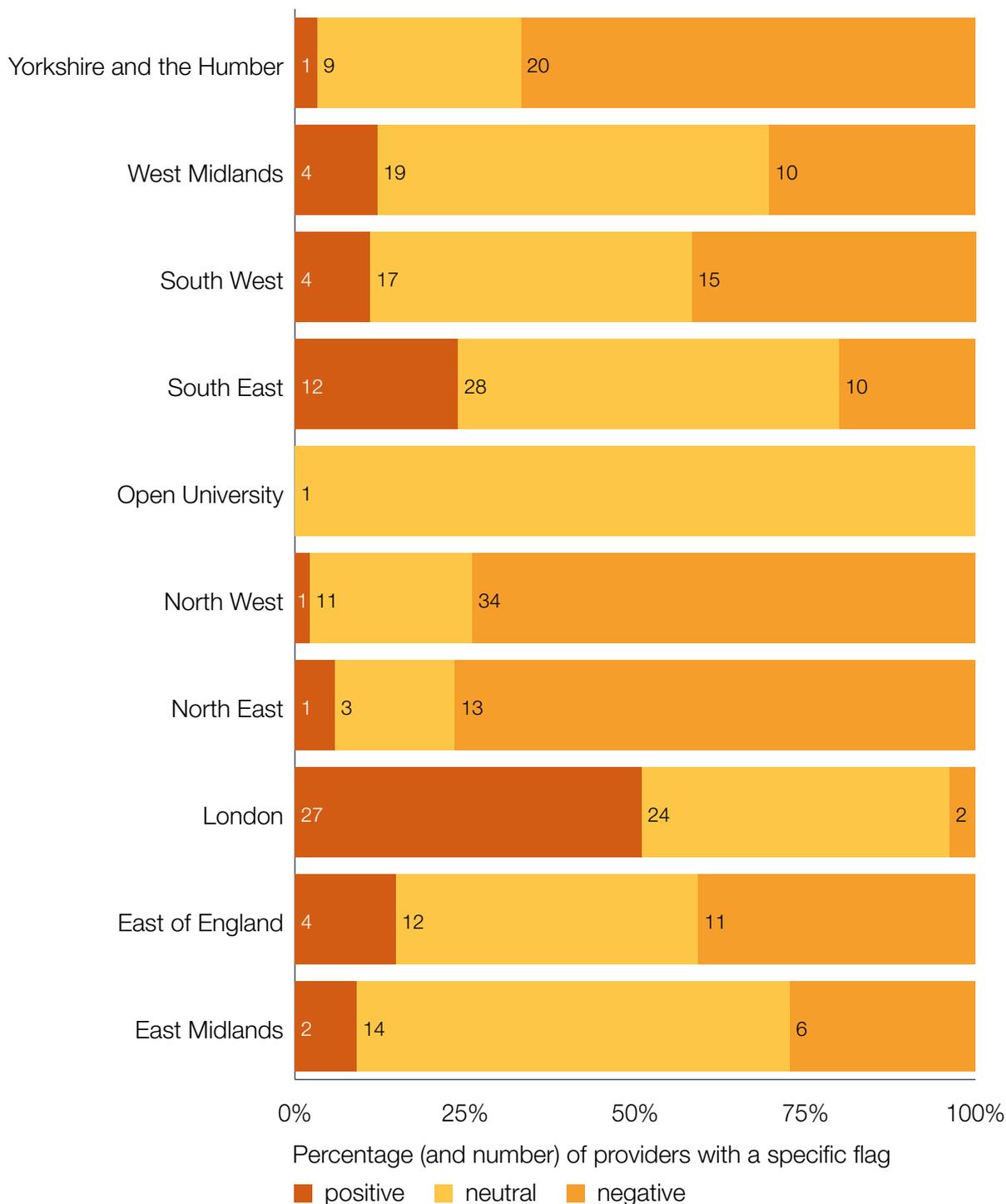
The charts below show the distribution of the flags for the LEO salary threshold metric by English regions for full-time provision (Figure 5) and part-time provision (Figure 6). Non-reportable metrics (around 30% across all regions) have been excluded from these charts.<sup>210</sup> The analysis presents the Open University separately because their students are distance learners, meaning it would not be appropriate to include them within a particular region.

Figure 5 shows that providers in London receive mainly positive and neutral flags. In contrast, for providers in other regions, it is neutral or negative flags that dominate, with mainly negative flags for providers in the North West, North East and Yorkshire and the Humber. For part-time students, the distribution of flags is similar, see Figure 6.

It does appear that providers in London (and the South East) have a greater proportion of positive flags compared to other regions. This could be because students who attend a London or South East provider are more likely to be employed in these regions, which have higher salaries on average.<sup>211</sup> It should be noted though that the data shown in this appendix does not identify the location of employment, it only identifies provider location.

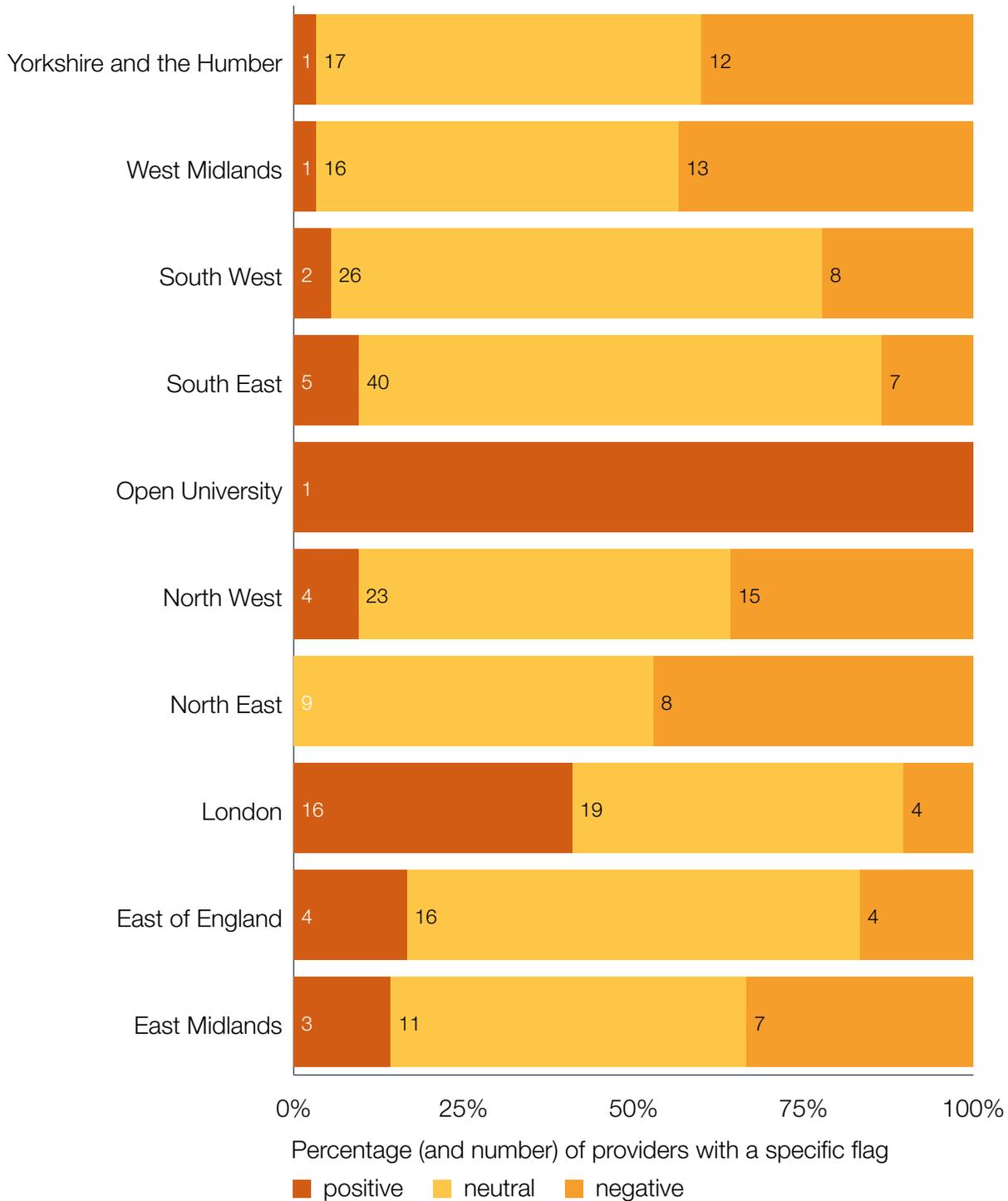
In contrast, when considering the sustained employment LEO metric (proportion of graduates in sustained employment or further study), London has a greater proportion of negative flags compared to other regions. Figure 7 demonstrates this for full-time provision.

**Figure 5:** Distribution of flags (negative, neutral or positive) by provider region for above median earnings threshold or further study metric (full-time study)



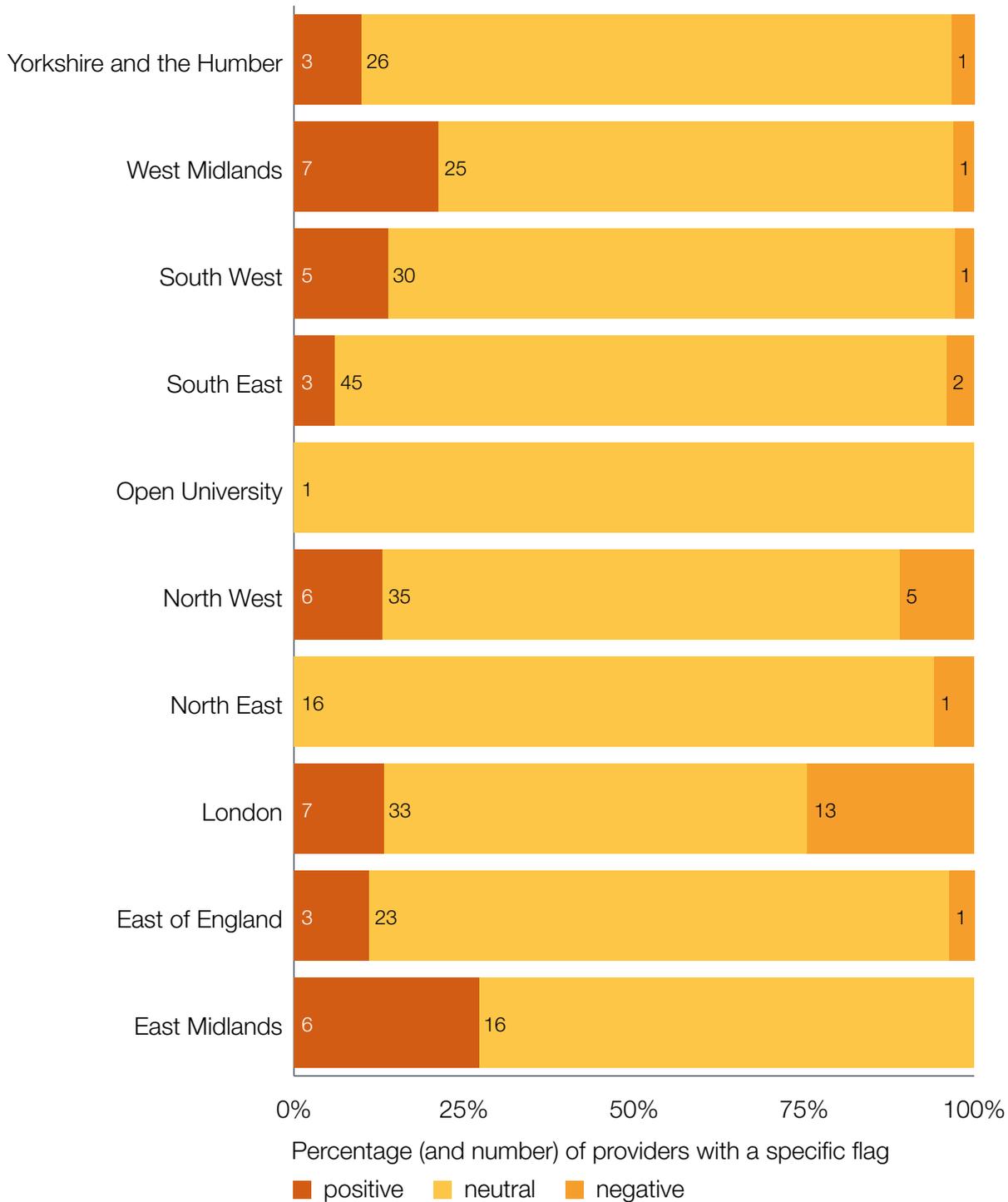
**Notes:** Metric flag data is from TEF data for assessments undertaken in academic year 2018–19 (TEF Year 4) which includes English providers that were in scope for the TEF during the TEF assessments that took place in that academic year (available at <https://www.officeforstudents.org.uk/advice-and-guidance/teaching/tef-data/get-the-data/>). Flags that are included as negative consist of single (-) and double (- -) negative flags and flags that are included as positive consist of single (+) and double (++) positive flags.

**Figure 6:** Distribution of flags (negative, neutral or positive) by provider region for above median earnings threshold or further study metric (part-time study).



**Notes:** Metric flag data is from TEF data for assessments undertaken in academic year 2018–19 (TEF Year 4) which includes English providers that were in scope for the TEF during the TEF assessments that took place in that academic year. Flags that are included as negative consist of single (-) and double (- -) negative flags and flags that are included as positive consist of single (+) and double (++) positive flags.

**Figure 7:** Distribution of flags (negative, neutral or positive) by provider region for sustained employment or further study metric (full-time study).



**Notes:** Metric flag data is from TEF data for assessments undertaken in academic year 2018–19 (TEF Year 4) which includes English providers that were in scope for the TEF during the TEF assessments that took place in that academic year. Flags that are included as negative consist of single (-) and double (- -) negative flags and flags that are included as positive consist of single (+) and double (++) positive flags.

# Appendix C:

## Response to the ONS report

### Introduction

This appendix sets out the TEF Independent Review's response to the ONS's 'Evaluation of the Statistical Elements of the TEF' report and recommendations.<sup>212</sup> This has been informed by the review's statistical steering group, which consisted of Shirley Pearce, three of her advisory group members (Anna Vignoles, Amanda Chetwynd and Jon Forster) and analytical staff from the DfE and the OfS.

In the review (see Chapter 4 on 'the assessment process'), we summarised the main statistical concerns that we had identified as relating to:

#### **The current approach to the management and communication of:**

- **statistical uncertainty at all levels of the process, including multiple comparisons**
- **small numbers (small providers and/or small datasets) and non-reportable metrics**
- **relative versus absolute comparisons**

**These all have a significant impact on flagging and generating the initial hypothesis, which are central parts of the current process.**

Throughout the development of the recommendations of this review we have been alert to these concerns. We have aimed, as much as possible, to frame our recommendations for the development of TEF in a way that removes the source, or minimises the impact of, these issues. We summarise below how the ONS recommendations contribute to addressing these concerns and we indicate the level of urgency that we consider needs to be given to each of their recommendations.

### Essential to implement

#### Statistical uncertainty, including multiple comparisons

The ONS report confirms that:

- there is insufficient allowance for statistical uncertainty in the underlying data and in the initial hypothesis generation process
- the flagging process is not sufficient to communicate uncertainty to TEF users (such as the TEF panel, students and providers)
- the binary nature of the flagging process means that similar institutions can end up with different initial hypotheses (Gold, Silver or Bronze) despite being very similar substantively
- the Step 1a initial hypothesis is very sensitive to the weights applied to each metric and the rationale for the weights has not always been clear
- insufficient allowance is made for multiple comparisons in the initial hypothesis generation process

We recommend that to address these issues of statistical uncertainties and multiple comparisons, the ONS recommendations listed below in Table 3 are **essential** to implement and should be given priority.

In addition, we recommend that documentation is improved to increase transparency about any parameters used in the statistical processes within TEF. This should include, for example, the weight given to each metric (if metrics are combined to form an initial judgement) and any thresholds used in generating an initial judgement using metric data (e.g. thresholds for z scores, value of flags required for a particular judgement, etc.). Documentation should clearly communicate how decisions were made and the rationale for them.

The proposals we make for the development of a revised framework structure will also reduce some of the sources of concern. In the revised TEF, the dependence on a metrics driven initial hypothesis covering all aspects of assessment will be removed, as we have proposed that nationally comparable metrics are only used as evidence for two of the four aspects.

**Table 3:** ONS recommendations that we consider essential to implement to address concerns about uncertainty

<b>3</b>	Monitor and report on potential non-response bias in the NSS (and other sources) on a regular basis, introducing appropriate non-response weighting or calibration if required.
<b>6</b>	In the published TEF documentation, make it clearer that the TEF outputs cannot solely be attributed to teaching quality, learning environment, and student outcomes / learning gain, because the benchmarking process does not take into account all confounding variables (those that would meet the TEF benchmarking principles but have not been included as benchmarking factors because they are unobserved or unmeasurable).
<b>9</b>	Make more explicit in the publicly available TEF documentation details of assumptions made in the calculations of z-scores and their standard deviations.
<b>11</b>	Improve communication on statistical uncertainty. For example, publish plots of TEF-metric differences and their confidence intervals by provider in rank order of the differences; the plots would clearly show which confidence intervals include zero, and which differences have absolute values that exceed thresholds considered to be meaningful.
<b>12</b>	Appropriate guidance on making multiple comparisons should be drafted and made prominent in the user guidance and with TEF outputs. The recommended plots of differences and confidence intervals could also accommodate this, with further extensions to the intervals' widths for multiple-comparison purposes also shown.
<b>16</b>	Carefully develop, test and implement (assuming feasible) an alternative approach to the binary nature of flag values when used in the Step 1a calculation.
<b>20</b>	The Step 1a methods should be developed further, and in a holistic way, noting the other recommendations made on specific aspects, and that development should include the consideration of a net total value measure, proportion functions and approximation of confidence intervals, if possible.

## Small numbers

As we have noted throughout the review there are many different ways in which small numbers present problems in arriving at judgements. The ONS report confirms that:

- small numbers lead to non-reportable metrics and a lower probability of achieving a (positive or negative) flag – this introduces bias in the initial hypothesis generation process, making it less likely for smaller providers to achieve either Gold or Bronze
- treatment of non-reportable metrics, missing data and small numbers significantly influences rating decisions and is not well communicated to the panel

We recommend that to address the problems of small numbers, the ONS recommendations listed below in Table 4 are *essential* to implement and should be given priority. In this table, ONS Recommendation 4 acknowledges that the issue of small numbers can also have an impact when, as a result of relatively small numbers at other institutions, an institution provides a large proportion of the students which are used to compute its benchmark, resulting in ‘self-benchmarking’.

**Table 4:** ONS recommendations that we consider essential to implement to address concerns about small numbers

<b>4</b>	Further consider Studentisation (the removal of the contribution of each provider from its own benchmark) in the benchmarking process, including its implications for other parts of the process and the possible impact on robustness due to small sample sizes.
<b>17</b>	Review the approaches used for dealing with: <ul style="list-style-type: none"> <li>• non-reportable metrics</li> <li>• the imputation of missing flags from individual component years (including consideration of discontinuing this practice)<sup>^</sup></li> </ul> making the TEF documentation of these methods and approaches fully transparent.
<b>23</b>	Consideration should be given to removing splits with a high prevalence of small sample sizes, or at least collapsing their categories.
<b>24</b>	TEF users should be advised of potential small-sample-size issues when working with the subject-level data; consider making explicit reference to subjects where this is likely to be of particular concern.

<sup>^</sup>**Note:** In Recommendation 17, ‘imputation’ refers to the practice of using a year-split flag to substitute for a core metric flag where the three-year aggregate core metric is non-reportable. This practice is currently used for the purpose of generating the initial hypothesis.

The review’s recommended principles and proposed framework structure will also address some of these concerns, as follows:

- Ratings would be made at provider and aspect level but not at subject level. This would reduce the number of occasions when small numbers are an issue and reduce the impact of small numbers on the rating judgements.
- We propose moving away from a single data-driven initial hypothesis that covers all aspects of assessment. In the current approach, the initial single hypothesis approach defaults to a Silver rating if a provider’s data cannot produce a statistically significant deviation from the average due to small numbers of students. Moving away from the single initial hypothesis will mean that panel assessors will be presented with a number of different metrics indicators but will not start with an initial assumption that the provider is Silver, which may unduly influence their assessment. All metrics presented to the panel will also include corresponding measures of uncertainty to help them interpret the statistical robustness of metrics with small numbers.

## Relative versus absolute comparisons

Benchmarking has a value in making important comparisons across the sector. However, absolute performance is also an important part of understanding an institution’s excellence and the overall performance of the sector as a whole.

The ONS report confirms that while the benchmarking process is a conceptually sound approach to try to determine the ‘value added’ by an institution, absolute values should also have a prominent role.

We recommend that to address this tension, the ONS recommendations listed below in Table 5 are *essential* to implement and should be given priority. The suggested approach by the ONS in their Recommendation 21 is to complement the current initial hypothesis (which is based on benchmarked flags) with another initial hypothesis that is generated using absolute indicators.

More broadly, we suggest that the TEF assessment process follows the general principle of giving prominence to both absolute and benchmarked performance in the data provided to the panels. Panels should consider them at the same time and move away from the current process whereby absolute indicators and markers of very high and very low absolute values are only considered by the panel after an initial hypothesis has already been formed based solely on the benchmarked flags. In doing this however, if there is a conflict between absolute and benchmarked performance, benchmarked data should continue to take precedence over absolute values in the determination of judgements and ratings.

**Table 5:** ONS recommendations that we consider essential to implement to address concerns about relative versus absolute comparisons

<b>21</b>	Consider developing an analogous, non-benchmarked version of a combined indicator, which could be presented alongside a benchmarked version in Step 1a.
<b>22</b>	The documentation and descriptions of ‘very high and very low absolute values’ and their methods should be made clearer and more transparent. The appropriateness of using provider-level thresholds for each specific subject should also be reviewed.

## Other ONS recommendations that could readily be incorporated in a revised TEF

The following ONS recommendations listed in Table 6 overlap with other changes recommended by this review, including periodic review, or are reduced in concern as a consequence of changes proposed to the framework. For example, ONS Recommendation 19 suggests re-considering the usefulness of a single initial hypothesis. The review also concludes that under its proposed framework, it would be inappropriate to form a single ‘initial hypothesis’ about a provider’s overall rating using the metrics, as we are proposing that only two of the four aspects use nationally comparable metrics.

**Table 6:** ONS recommendations that could be incorporated when implementing a revised TEF

<b>1</b>	Time series analysis, including an assessment of stability, of TEF-input core-metric indicator series should be conducted and made available on an ongoing basis.
<b>10</b>	Calibration of the TEF flagging system should be reviewed periodically, on an ongoing basis, and corrective action taken where necessary.
<b>19</b>	In the context of the different core metrics capturing a diverse range of information, consider the usefulness of a single, combined measure in Step 1a, alongside the other recommendations we make about the Step 1a process.
<b>30</b>	Consult with a broad range of users on their understanding and use of existing TEF outputs, and how they would like them communicated to be as useful as possible.
<b>32</b>	Consider the comments made on the appropriateness of the core metrics, and whether any improvements could be made.
<b>33</b>	Review the pilot run in TEF Year Four, and consider the usefulness of subject-level ratings, given the methods and data that support them.

## Other ONS recommendations which we consider less urgent

We consider the ONS recommendations listed in Table 7 to be important but less urgent.

**Table 7:** ONS recommendations that are important but less urgent

2	Documentation describing the NSS confidence-interval calculations, and the assumptions upon which they are based, should be updated and made clearer.
5	Consider refining the benchmark model building process, for example by investigating variable reduction techniques and cross-validation; and summarise this process in the TEF user guidance, including appropriate model outputs and diagnostics indicative of goodness-of-fit (such as pseudo-R2).
8	A fuller description of the target population, and any assumptions made about it, are made more explicit in the TEF user guidance.
13	To improve transparency, TEF should adopt use of relative weights for the core metrics, rather than absolute weights.
14	Convene an expert panel to decide on the metrics' weights (if not done already), and clearly communicate the principles, decisions, and the rationale for them.
18	Consider a formulaic approach to combining the metrics for both full-time and part-time students.
25	To ensure harmonisation across government data, we recommend adoption of the GSS question on disability. If not, then ensure that respondents fully understand the guidelines when answering the existing question. <sup>^</sup>
26	To improve comparability on Gender identity, and to consider alongside the definition of Sex:  re-label the variable to 'Transgender status' to avoid confusion  ensure 'prefer not to say' is included as a standard option.
27	Further consideration should be given to how non-binary data on respondents' sex is treated, and the implications for data quality when binary data on sex are required for reporting purposes.
28	Plans and preparations should be made to handle the discontinuity caused by the forthcoming transition from SOC 2010 to SOC 2020. <sup>^</sup>
29	On the Common Aggregation Hierarchy:  consider the name of the classification, perhaps adding 'of Academic Subjects' to its title to make it more self-explanatory, and a year to denote its introduction  plans and preparations should be made to handle the discontinuity caused by the forthcoming transition from JACS to HECoS. <sup>^</sup>
31	Consider the comments given, together with user feedback, to improve the content and layout of the TEF webpages.

<sup>^</sup>**Notes:** GSS = Government Statistical Service; SOC = Standard Occupational Classification; JACS = Joint Academic Coding System; HECoS = Higher Education Classification of Subjects

## ONS recommendations which we consider of low priority

We consider two ONS recommendations to be of low priority for the revised TEF. These are:

*ONS Recommendation 7: Research further the grouping of providers by type in the TEF assessment process to account for factors that cannot easily be included in benchmarking process with the aim of improving comparability further. If the research outcomes suggest groupings that are viable, carefully consider the options, implications and practicality of implementation.*

We do not consider further research into **grouping of providers** to be a priority. The purpose of using provider categories would be to account for factors that cannot easily be included in the benchmarking process. We concluded that no existing categorisation would be able to account for factors that are by definition ‘unaccountable’, as they cannot be observed in the data.

On balance, we consider that groupings would not be appropriate for a revised TEF because:

- Benchmarking is designed to take account of observable factors and to compare like for like students across the whole sector, not within groups.
- Using a subjective grouping is problematic because it relies on unobservable assumptions and would not align easily with our principles of robustness and transparency. It risks drawing artificial boundaries between similar institutions and fluctuations in grouping over time could jeopardise the robustness of TEF.
- Through improved communication for student information purposes and the consideration of TEF ratings as part of the broader IAG agenda, differences in mission and culture of institutions will be clearer.

*ONS Recommendation 15: Consider developing a ‘personal TEF calculator’: a tool that allows users to input their own metric weights for the Step 1a calculation.*

We consider this to be a low priority for a revised TEF which has enhancement as its core purpose. This recommendation seems more relevant to the OfS IAG project, which may wish to consider ways to personalise the broad base of information, of which TEF ratings and TEF data are only a part.

## What we conclude

The ONS report has been invaluable in identifying the major issues that need to be addressed in the use of statistics and management of data in the TEF. We are extremely grateful to them for the careful thought and consideration of the wide range of issues that have gone into their detailed recommendations. We consider that the ONS recommendations and the overall recommendations of this review are complementary and can be integrated in the development of a revised TEF.

# Appendix D:

## Graduate Outcomes survey content and structure

This appendix provides an outline of three sections of the Graduate Outcomes survey (reflection on activity to date, subjective well-being and net promoter entity) and explains how these sections fit into the survey as a whole. As set out in Chapter 5 on ‘developing the framework’, these sections have been chosen and discussed in detail here because they assess more nuanced aspects of the concept of graduate outcomes and could be used to develop broader outcome metrics for TEF. We suggest that the questions about ‘reflection on activity to date’ may be most relevant.

The content of this appendix has been developed from the HESA Graduate Outcomes survey page, where the full details of all survey questions can be found.<sup>213</sup>

### Core survey questions

The main part (excluding opt in questions) of the Graduate Outcomes questionnaire is made up of eight sections. All graduates will receive the eight core sections, but only some of the questions in these sections are mandatory for students to complete. HESA considers the survey complete (known as a ‘full response’) when respondents have answered all mandatory questions within these eight core sections. Most, but not all, of the questions in the first four sections are mandatory and the remaining sections are not mandatory. The two sections outlined below (reflections on activity to date and subjective wellbeing) have no mandatory questions.

### Reflection on activity to date

This section aims to capture the graduate voice and the diversity of graduate outcomes. It is designed to gain a personal impression from graduates about how ‘on track’ they think they are, how they feel their current situation fits with their future plans and former studies, as well as the degree to which they feel their current activity or activities (be it work, study or something else) feels meaningful and important. Dependant on survey routing, graduates are asked to what extent they agree or disagree with the following options:

- My current work fits with my future plans?
- My current work is meaningful?
- I am utilising what I learnt during my studies in my current work?
- My current study fits with my future plans?
- My current study is meaningful?
- I am utilising what I learnt during my studies in my current study?
- My current activity/activities fit with my future plans?
- My activity/activities are meaningful?
- I am utilising what I learnt during my studies in my current activity/activities?

Responses are on a five-point scale ranging from 'strongly agree' to 'strongly disagree'.

## Subjective wellbeing

The questions in this section are designed to understand a graduate's feelings about aspects of their life. These questions are consistent with the ONS' questions on personal wellbeing. Graduates are asked:

- how satisfied they are with their life nowadays
- the extent that they feel the things they do in their life are worthwhile
- how happy they felt yesterday
- how anxious they felt yesterday

Responses are on an 11-point scale from 0 to 10. Depending on the question, 0 identifies as 'extremely dissatisfied', 'not at all worthwhile', 'extremely unhappy' or 'not at all anxious' and 10 identifies as 'extremely satisfied', 'extremely worthwhile', 'extremely happy' or 'extremely anxious'. The survey highlights that there are no right or wrong answers.

## Opt-in questions

Higher education providers can supplement the core Graduate Outcomes survey with a range of opt-in question banks which have been approved by the Graduate Outcomes steering group. Six different opt-in banks are available, but for the purpose of this review we have only discussed the section on net promoter entity.

## Net promoter entity

This section asks how likely graduates would be to recommend their provider to a friend or colleague. Responses are on an 11-point scale from 0 (not at all likely) to 10 (definitely). They are then asked to give a reason for that score.

# Appendix E:

## Comparison of TEF and proposed EdEF

**Figure 8:** Comparison of the TEF and proposed EdEF

	<b>TEF</b>	<b>EdEF</b>
<b>Dimensions</b>		<b>Two dimensions of quality:</b> Educational Experience Educational Outcomes
<b>Aspects</b>	<b>Three aspects of quality:</b> Teaching Quality (TQ) Learning Environment (LE) Student Outcomes & Learning Gain (SO)	<b>Four aspects of assessment:</b> Teaching and Learning Environment (TLE) Student Satisfaction (SS) Educational Gains (EG) Graduate Outcomes (GO)
<b>Evidence</b>		
Contextual data	Data from OfS showing the characteristics of the student cohort and subject mix at the provider	
Nationally comparable metrics	<b>All aspects have national metrics:</b> NSS Student satisfaction (TQ & LE) Continuation (LE) DLHE Employment or further study (SO) LEO Sustained employment & salary (SO) Differential degree attainment (SO) (pilot) Grade inflation (TQ) <b>Provider and subject (pilot) metrics</b>	<b>Only SS and GO have national metrics:</b> NSS Student satisfaction (SS) Continuation (GO) GO Employment or further study (GO) LEO Sustained employment & salary (GO) Differential degree attainment (GO) <b>Provider and subject metrics</b>
Provider submissions	<b>Provider submission</b> Institutionally determined evidence Covers all three aspects <b>Subject submissions (pilot)</b> Institutionally determined evidence Separate submission for each subject	<b>Provider submission</b> Institutionally determined evidence Covers all four aspects Should address subject variability Standard structure
Student input	<b>Student declaration (pilot)</b> TEF Student Representative fill out a form to confirm whether students had appropriate opportunities to be involved in provider submissions	<b>Student submission</b> Standard structure covering all aspects Student determined evidence Should address subject variability
<b>Assessment</b>	<b>Panel:</b> peer review by independent panel of experts, academics and student representatives	
<b>Ratings names</b>	<b>Gold</b> <b>Silver</b> <b>Bronze</b>	<b>Outstanding</b> <b>Highly Commended</b> <b>Commended</b> <b>Meets UK quality requirements</b>
<b>Provider rating</b>	<b>Overall provider rating</b>	<b>Overall provider rating</b>
<b>Subject ratings</b>	<b>Rating for each subject (pilot)</b>	
<b>Aspect ratings</b>		<b>Rating for each of the four aspects</b>
<b>Statement of findings</b>	Statement from the panel, giving reasons for its overall rating	Statement from the panel, giving reasons for its aspects ratings and overall rating, including reference to any limiting factors applied (eg subject variability not sufficiently addressed)
<b>Review</b>	To date: ongoing changes from lessons learned exercise and pilots	Periodic review to ensure EdEF continues to be: Transparent, Relevant, Robust

# Appendix F:

## Further suggestions

In addition to the 10 primary recommendations made by this review, throughout the report we have made further suggestions that support these recommendations. We have summarised these below under the headings within which they appear in the report.

## Chapter 2: Purpose

Topic	Ideas for consideration
<b>Information, advice and guidance</b>	TEF ratings should be fully incorporated into the OfS' new student information resource due to be in place in autumn 2019.
<b>Access and participation</b>	<p>We support the continued use of design elements in TEF such as benchmarking, split metrics and the criterion about 'positive outcomes for all'.</p> <p>We encourage the OfS to use comparable data across the TEF and access and participation analysis and plans.</p>
<b>Where TEF fits in the regulatory system</b>	<p>How TEF relates to the wider regulatory landscape for HE across the UK should be communicated clearly to ensure there is a coherent message, both domestically and internationally, about how all aspects of UK HE are regulated and assessed.</p> <p>The future development of TEF should involve close communication across the devolved administrations.</p>

## Chapter 3: Principles

Topic	Ideas for consideration
<b>Transparency</b>	A targeted communication programme about TEF is needed to explain its purpose, raise awareness and improve understanding of the assessment process.
<b>Relevance</b>	There should be clear articulation of how all parts of the framework play a part in identifying educational excellence or enhancing educational provision.
<b>Robustness</b>	Consideration should be given to methods, such as an audit of submissions, to verify the evidence in submissions.

## Chapter 4: The assessment process

Topic	Ideas for consideration
<b>Statistical improvements</b>	Statistical analysis and methods should be a core part of the overall periodic review of TEF.

## Chapter 5: Developing the framework

Topic	Ideas for consideration
<b>National metrics</b>	<p>Developments in educational research that will improve the metrics and inform future reviews of the assessment process should be supported.</p> <p>The grade inflation metric should not be retained in TEF, as we are concerned that it does not meet the principle of being relevant to a purpose of enhancing provision.</p> <p>The choice of metrics used in the framework should be reviewed on a regular basis in the periodic review.</p>
<b>Using metrics to form an initial judgement</b>	<p>Whether and how the metrics might be used to form initial judgements for the proposed aspects that do have national metrics (i.e. 'Student Satisfaction' and 'Graduate Outcomes') should be considered and tested when implementing the revised structure.</p>
<b>Developing the aspects of assessment in more detail</b>	<p>Careful consideration should be given to the growing evidence base, both domestically and internationally, about factors that influence the quality of HE provision and how these can be measured.</p>
<b>Criteria</b>	<p>Rather than trying to map the existing TEF criteria onto the proposed framework structure, we believe the criteria should be re-designed to align with the four proposed aspects.</p>
<b>The 'Teaching and Learning Environment' aspect</b>	<p>In defining this aspect in more detail, consideration should be given to the balance between the information required for the panel to make a valid judgement and the level of flexibility needed to allow providers to present their particular missions.</p>
<b>Measures of graduate outcomes</b>	<p>We suggest that the broader questions in sections G, H and J of the Graduate Outcomes survey become mandatory.</p>
<b>Evidence in submissions</b>	<p>Where institutions report their own data, it should be verifiable and information about sample size and response rates should be included.</p>
<b>Training for panels</b>	<p>There will need to be in depth training for panellists to ensure they are able to understand and interrogate both the qualitative and quantitative data provided in submissions.</p>
<b>Student submission</b>	<p>The amount of institutional data and information that the student body receives should be given careful consideration to ensure they are able to make informed comments in their submission.</p> <p>Early testing with student bodies will be necessary to guide development and arrive at the best way to provide an independent student submission.</p>

## Chapter 6: The rating system

Topic	Ideas for consideration
<b>Relationship between aspect ratings and provider rating</b>	<p>Further development work will be needed to establish the best relationship between aspect ratings and the overall provider rating. We are not recommending any particular formula, but our starting point would be that the overall provider rating is a holistic judgement, informed by the four equally weighted aspect ratings. Further testing would be needed to determine if equal weighting creates the right balance between the aspects.</p> <p>We also propose that to incorporate the subject-level exercise into the provider-level process and ratings, key limiting factors should be identified. Providers should be able to demonstrate they have mechanisms in place to identify strong and poor performing subjects and that enhancement interventions are in place and having an impact. Limiting factors would apply if the provider failed to demonstrate this. We suggest that if a limiting factor is applied to any one of the aspect ratings, it should also apply to the overall provider rating.</p> <p>The ratings achieved for each aspect could also act as a limit on the overall provider rating that can be achieved.</p>
<b>Rating names</b>	<p>The alternative set of names we have proposed should be subjected to testing with all users, including understanding how they will be perceived internationally.</p> <p>We are not making a recommendation about the ‘Provisional’ rating name, but in line with the recommended principle of transparency, the DfE and the OfS may wish to consider an alternative term to ‘Provisional’ that more clearly communicates that these providers have not yet been assessed. For example, ‘pending’ or ‘not yet assessed’.</p>
<b>Feedback to providers</b>	<p>Ideally, ratings would be complemented by a narrative that offers more detailed feedback to providers.</p>

## Chapter 8: Is it fair?

Topic	Ideas for consideration
<b>Limitations of the metrics</b>	<p>Limitations of the metrics should be considered as part of the recommended process of periodic review, as developments in the data over time may reduce some of the concerns and limitations.</p>

# Appendix G:

## Glossary

### **Access and participation plans and statements**

These are documents that the Office for Students requires from higher education providers in England that want to be registered providers. They set out how the provider will improve opportunities for under-represented groups.

In short, an access and participation plan is monitored by the OfS and is required if a provider wishes to be in the Approved (fee cap) category of registration and charge higher level fees, and for their students to be eligible for equivalent-size loans. All other providers are required to produce an access and participation statement. A statement is produced annually, whereas (from 2020–21) a plan will last no longer than five years, with the OfS able to require a provider to submit a new plan before this if they are not satisfied that expected levels of progress have been made.

### **Alternative providers (APs)**

Alternative providers are higher education providers who do not receive recurrent funding from the Office for Students or other public bodies, and who are not further education colleges.

### **Aspects of assessment**

The criteria against which providers are assessed in TEF are grouped into several aspects, each looking at a different component of educational quality. TEF has three aspects: Teaching Quality, Learning Environment, and Student Outcomes and Learning Gain. The review proposes four aspects: Teaching and Learning Environment, Student Satisfaction, Educational Gains, and Graduate Outcomes.

### **Assessment framework**

The assessment framework sets out how judgements about excellence are made in TEF. It refers to the aspects of quality, the criteria, the nature of the evidence and how the evidence will be assessed against the criteria to determine the ratings.

### **Benchmarking**

Benchmarking is a process designed to ensure the indicators upon which providers are judged are weighted to take into account observable factors that vary for different providers – such as the age, ethnicity and gender of their students – to enable a fairer comparison across the whole sector. The process is applied to each provider's metric and split metric.

### **Bronze**

Bronze is the third of the three ratings that can be awarded under the TEF. As set out by the OfS, a provider is awarded Bronze for delivering teaching, learning and outcomes for its students that meet rigorous national quality requirements for UK higher education.

### **Call for views**

The review ran an online public consultation exercise from 18 January to 1 March 2019, referred to as a 'call for views', to gather a wide range of views from across the higher education sector and beyond to inform the Independent Review of TEF.

### **Common Aggregation Hierarchy (CAH)**

The Common Aggregation Hierarchy is a coding system that groups subjects offered by Higher Education providers together in such a way as to ensure consistency between various analyses and publications. The hierarchy has three levels, with the second level (CAH2) forming the basis of the subjects used in the subject-level TEF pilots.

### **Confidence intervals**

Confidence intervals are a range of values used to describe a piece of data, the true value of which it is not possible to ascertain. The ONS recommends the use of confidence intervals to better communicate the levels of statistical uncertainty involved in the assessment process.

### **Contextual data**

Data on the nature and operating context of a provider, such as their size, location and student population, which is used by panellists and assessors in interpreting performance against the core metrics and additional evidence but does not itself form the basis of any judgement about excellence.

### **Continuation**

The continuation metric aims to measure the proportion of students entering higher education that continue their studies. The TEF continuation metric is based on data collected by the Higher Education Statistics Agency (HESA). For full-time students, it measures continuation from the year of entering Higher Education to the following year.

### **Core metrics**

Measures derived from national surveys and data returns which have been defined, benchmarked and reported as a key part of the evidence used in TEF assessments. All core metrics are reported separately for the provider's full-time and part-time students, and averaged over three years. For provider-level TEF, there are currently six core metrics. In the second year of the subject-level pilots, there were nine core metrics.

### **Destination of Leavers from Higher Education (DLHE)**

The Destination of Leavers from Higher Education survey, run by the Higher Education Statistics Agency (HESA), is used by TEF to provide data on what students do after they graduate. It is in the process of being replaced by the Graduate Outcomes survey.

### **Devolved administrations**

The devolved administrations are the governments of Northern Ireland, Scotland and Wales. Higher education policies differ between these three administrations and England because they have responsibility for education matters under the devolution settlement.

### **Differential degree attainment**

Differential degree attainment is a concept that refers to the differences in degree outcomes between different types of students, based on characteristics such as gender, age or ethnicity. A measure of differential degree attainment was included in the 2018–19 subject-level pilot.

### **Distance learning**

Distance learning is a type of higher education provision in which students carry out their learning activities without being physically present in the provider's facilities. It often takes place over the internet.

## **Dimensions of excellence**

The review proposes that the four aspects of assessment (see other definition) for the Educational Excellence Framework be split into two different dimensions – ‘educational experience’ and ‘educational outcomes’ – with each dimension having two aspects. It proposes that each of these dimensions should have one aspect in which national data can be compared, and one aspect in which institutions demonstrate their excellence from evidence that they choose themselves.

## **Domestic students**

Domestic students are residents of the United Kingdom who study at higher education providers located in the United Kingdom.

## **Flags and flagging**

TEF metrics include flags when the difference between the indicator and the benchmark is both significant and material. Flags denote either a positive or a negative difference. The process used by TEF to assign flags is known as ‘flagging’.

## **Further education colleges (FECs)**

Further education colleges are institutions that provide qualifications other than undergraduate or graduate degrees, often of a technical or professional nature. Many also deliver some higher education, in the form of undergraduate or graduate degrees.

## **Further study**

Further study is a term that is used to refer to students undertaking study at the same or lower level as an undergraduate degree, such as by undertaking the vocational Legal Practice Course that is required to become a solicitor.

## **Gold**

Gold is the highest of the three ratings that can be awarded under the TEF. As set out by the OfS, a provider is awarded Gold for delivering consistently outstanding teaching, learning and outcomes for its students.

## **Graduate Outcomes (GO) survey**

The Graduate Outcomes survey, first run by the Higher Education Statistics Agency (HESA) in December 2018, will be used by TEF to provide data on what students do after they graduate. It will replace the Destination of Leavers from Higher Education survey.

## **Higher education provider**

A higher education provider is an organisation that delivers higher education. A provider can be an awarding body in its own right, or can deliver higher education on behalf of another awarding body. The term encompasses higher education institutions, further education colleges and alternative providers.

## **Higher Education and Research Act 2017 (HERA)**

The Higher Education and Research Act 2017 is a piece of legislation enacted by the Houses of Parliament on 27 April 2017, which established the Office for Students (OfS) and set out the terms of the Independent Review of TEF. The OfS adopted the TEF under section 25 of the Act, and the Independent Reviewer of TEF was appointed under section 26 of the Act.

### **Longitudinal education outcomes (LEO)**

LEO data refers to education data records joined to tax and benefits data. It allows the tracking of students through school, college, university and into the labour market. This shows whether students were employed after graduating and how much they were paid. It also shows if they subsequently studied on another course.

### **Higher study**

Higher study is a term that is used to refer to students undertaking study at a higher level than an undergraduate degree, such as by studying for a Master's degree or a PhD.

### **Knowledge Exchange Framework (KEF)**

KEF is a framework being developed by Research England, to increase efficiency and effectiveness in use of public funding for knowledge exchange.

### **Indicator**

The provider's value for a particular metric, expressed as a proportion, such as the percentage of students that indicated they were satisfied with teaching and learning.

### **Initial hypothesis**

The TEF rating initially assigned to a provider by TEF panellists and assessors, based on their metrics only. This initial hypothesis can be changed after the panel considers the additional evidence. The final TEF rating assigned by the TEF panel is a holistic judgement, and is not bound by the initial hypothesis.

### **Initial judgement**

This is an alternative term for 'initial hypothesis' to reflect the different nature of this starting point rating under the review's proposals. Whereas an 'initial hypothesis' is a single rating covering the provider as a whole, an 'initial judgement' would cover only one aspect of assessment and would only be used for an aspect with nationally comparable metrics.

### **Institutionally determined evidence**

Institutionally determined evidence is a term used by the review to refer to quantitative and qualitative evidence provided by higher education providers through their submissions. It will differ between institutions, as it is not reported on a consistent national basis.

### **Interdisciplinary provision**

Interdisciplinary provision refers to study that crosses two or more subject categories (for example, two of the categories in CAH2).

### **International students**

International students are those who are normally resident abroad, but who study in providers located in the United Kingdom.

### **Learning gain**

Learning gain is conceptualised in many different ways. The Office for Students broadly defines it as the improvement in knowledge, skills, work-readiness and personal development made by students during their time in higher education. It is measured in a variety of ways by different institutions.

### **Listening sessions**

These were sessions run by the independent review with stakeholders and stakeholder groups to explore their views on TEF.

### **Multiple comparisons problem**

The multiple comparisons problem refers to the statistical problem of accurately expressing uncertainty when making multiple comparisons. This is because the greater the number of times you compare two sets of data, the more likely you are to find a random fluctuation that looks like a significant difference, but isn't.

### **National Student Survey (NSS)**

The National Student Survey is an annual UK-wide survey of final-year undergraduates.

### **Nationally comparable metrics**

Nationally comparable metrics are quantitative measures that are the same for all providers, such as the TEF metrics derived from the results of the National Student Survey.

### **Non-reportable metrics**

Non-reportable metrics are metrics for which no indicator is shown. Metrics may be non-reportable because there were: fewer than 10 students in the population, low response rates to the survey collecting the data underlying a metric, insufficient data to form a benchmark, or suppressed for data protection reasons.

### **Office for Students (OfS)**

The OfS is the independent regulator of the higher education sector in England. It is responsible for running TEF, and was established on 1 January 2018. It is a non-departmental public body of the DfE, based in Bristol.

### **Participation of Local Areas (POLAR)**

Participation of Local Areas data classifies areas of the UK by the proportion of the young population that participates in higher education. It is used in the TEF process as a measure of educational disadvantage.

### **Professional and Statutory Regulatory Bodies (PSRBs)**

PSRBs are a range of organisations which are involved in setting and maintaining professional standards, and the accreditation of degrees. They often focus on a particular subject area.

### **Provider submission**

The provider submission is prepared and submitted by a provider and used by panellists and assessors to inform their TEF judgement. A provider submission can contain information on a provider's mission and characteristics, contextual information that explains performance against the metrics and additional evidence to support the case for excellence. The additional evidence should address the criteria and can be qualitative or quantitative.

### **Provisional TEF award**

'Provisional' is a TEF rating given to a provider that opts into the TEF but which does not have the minimum set of metrics required to inform a TEF assessment and receive a TEF rating of Bronze, Silver or Gold. Providers receiving TEF Provisional awards meet national quality requirements, but do not yet have sufficient data to be fully assessed.

### **Proxy**

The term 'proxy' is used by the review to refer to the use of data that are believed to correlate with – but do not directly measure – the desired variable. An example of this is how TEF uses the National Student Survey scores as proxies for teaching quality, as there are no direct quantitative measurements of teaching quality.

## **Research Excellence Framework (REF)**

REF is the UK's system for assessing the quality of research in UK higher education institutions.

## **Silver**

Silver is the second of the three ratings that can be awarded by TEF. As set out by the OfS, a provider is awarded Silver for delivering high quality teaching, learning and outcomes for its students.

## **Splits/split metrics**

Categories by which core metrics are sub-divided to show how a provider performs with respect to different student groups (such as by age or ethnicity) and/or in different years.

## **Statement of findings**

A brief, high-level written statement that outlines the reason for the TEF rating awarded to a particular provider.

## **Studentisation**

'Studentisation' is a process which would see the removal of the data of each provider from the calculation of its own benchmark. This term is used by ONS in their recommendations.

## **Supplementary metrics**

These are metrics that do not form part of the eligibility requirements for a TEF assessment, and do not inform the initial hypothesis, but which are displayed to TEF panel members when available – for example, data on grade inflation.

## **TEF assessor**

TEF assessors consider the evidence available to them and work with panellists to make a provisional judgement about the TEF rating that a provider should receive. The provisional outcome is recommended to the TEF panel. Assessors are experts in teaching and learning, or students.

## **TEF award**

A TEF award is made up of the TEF rating (see other definition) and a brief statement of findings.

## **TEF panel**

The TEF panel is the decision-making body for TEF assessments. It is responsible for reviewing the recommendations made by TEF panellists and assessors and deciding the final rating a provider will receive. The TEF panel is chaired by Professor Sir Chris Husbands, Vice-Chancellor of Sheffield Hallam University. For the subject-level pilots, the panel was chaired by Professor Janice Kay CBE, Provost and Senior Deputy Vice-Chancellor at the University of Exeter.

## **TEF panellist**

Panellists are those individuals who sit on the TEF panel that determines TEF ratings, and who are assisted by a wider pool of assessors.

## **TEF ratings**

A TEF rating is the level of excellence achieved by a provider under the TEF. There are three possible ratings: Bronze, Silver and Gold. The review recommends that there be four possible ratings: Meets UK Quality Requirements, Commended, Highly Commended and Outstanding.

### **UK quality baseline**

This is a collective term used to refer to arrangements for ensuring higher education providers meet baseline expectations for academic quality and standards. There are different arrangements in operation in different parts of the UK and, in some parts, for different types of providers, but in all cases, expectations are underpinned by the UK Quality Code for Higher Education.

### **Unistats**

Unistats is an official website that allows individuals to search for and compare data and information on university and college courses from across the UK.

### **Z-score**

In relation to the metrics, the Z-score denotes the number of standard deviations that a provider's indicator is from the benchmark and is used as a measure of statistical difference.



## Endnotes

1. Shirley stepped out of this role for the duration of the review.
2. Department for Education (2018) Teaching Excellence and Student Outcomes Framework: subject-level government consultation response, p3, <https://www.gov.uk/government/consultations/teaching-excellence-and-student-outcomes-framework-subject-level>
3. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p13, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
4. The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, see the 'purpose' section, p5, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
5. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), table 4.2, p20, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
6. Ibid.
7. In particular, FECs said that TEF: increased the visibility of their HE work; increased recognition for quality enhancement; and increased the voice of those within the college seeking to enhance HE. Source: The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p5, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
8. Respondents to the call for views identified that TEF has 'redressed the imbalance between teaching and research in higher education'. Source: York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.228, p88, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>. This also came out as a consistent theme in our listening sessions, particularly from international stakeholders, who felt that TEF is having a positive impact on rebalancing research and teaching. Source: The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p25, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
9. The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, see section on the 'utility of data' under subject-level TEF, p20, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
10. IFF Research, on behalf of the DfE (2019) Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape Research report, p121, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>
11. Some FECs and APs mentioned that TEF enabled them to be compared directly against more prestigious universities. Source: The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p16, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
12. Please see the Glossary at Appendix G for a description of the benchmarking process used in TEF.
13. Department for Education and UCAS (2019) Research to support the Independent TEF Review: Surveys of HE applicants, p5, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants>
14. This is calculated based on combining the following statistics: 73% of careers advisors reporting they had heard of TEF and 61% of those who had heard of TEF reported using TEF to help individual students make decisions about where to study (12% used it a lot, 21% used it a moderate amount and 28% used it a little). The overall figure is calculated as 61% of the 73%, leading to 45%. Source: Department for Education and UCAS (2019) Research to support the Independent TEF Review: Survey of HE careers advisors, p3 and p5, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-survey-of-he-careers-advisors>
15. Careers advisors: Ibid, p9. Applicants: Department for Education and UCAS (2019) Research to support the Independent TEF Review: Surveys of HE applicants, p7, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants>
16. Department for Education and UCAS (2019) Research to support the Independent TEF Review: Surveys of HE applicants, p13, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants>
17. Ibid, p12.
18. Applicant knowledge of provider-level TEF has increased between the 2018 to 2019 application cycles. Source: *ibid*, p3.
19. Across all 2019 applicants, 22% actively used TEF. Of those who knew about the TEF, this rises to 41% and for international students, 47%. Note however that due to small sample sizes, this difference is not statistically significant. Source: *ibid*, p5.
20. IFF Research, on behalf of the DfE (2019) Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape Research report, para 1.52, on p19 and chapter 5, p120, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>
21. This is compared to applicants who had heard of the TEF but knew nothing about it. Source: Department for Education and UCAS (2019) Research to support the Independent TEF Review: Surveys of HE applicants, p9, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants>
22. These additional breakdowns of the rankings were shared with the review by DfE based on the UCAS survey data, but are not included in the published findings.
23. The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p6, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
24. Employers were particularly interested in widening participation, as it aligned with their own aims of recruiting more employees from disadvantaged backgrounds. The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p10, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
25. 34% of respondents considered both enhancement and information to be of equal importance. Source: York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.9, p20, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
26. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p26, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
27. For more detail about the communication concerns raised by the devolved administrations, please see: The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p15, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>

28. The OfS Student IAG strategy and information about their next steps, including launching a UK-wide replacement for Unistats, can be found at: <https://www.officeforstudents.org.uk/advice-and-guidance/student-information-and-data/providing-information-advice-and-guidance-for-students/student-information-advice-and-guidance-strategy/>
29. For example, respondents to the call for views felt the benchmarking process was not transparent and this led to confusion about the process and its results. Source: York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p42, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
30. Ibid, p22; Department for Education (2019) Research to support the independent TEF review: surveys of HE applicants, p13, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants>; IFF Research, on behalf of the DfE (2019); Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape Research report, p88, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>
31. From a total of 15 interviews carried out by British Council with experienced individuals working on HE in different countries, just three participants expressed prior knowledge of the TEF and only one reported having robust knowledge and understanding. Source: British Council (2019) International perceptions of the Teaching Excellence and Student Outcomes Framework, p13, <https://www.britishcouncil.org/research-policy-insight/research-reports/independent-review-of-tef>
32. We discuss this in Chapter 4 on ‘the assessment process’ in relation to misunderstandings about how the LEO metrics work within the TEF process, particularly in relation to graduate starting salaries. See the ‘assessing outcomes’ section.
33. We believe grade inflation is one example of this. We discuss this in Chapter 5 on ‘developing the framework’. See the ‘National metrics in the revised framework’ section.
34. We discuss our views about which of the existing TEF metrics meet our recommended principles in Chapter 5 on ‘developing the framework’.
35. The provider-level TEF process has 10 criteria, but there are 11 criteria being tested in the 2018–19 subject-level pilot. A full list of the 10 criteria used in provider-level TEF can be found in the DfE TEF Specification and the 11 criteria used in the pilot can be found in the OfS Pilot Guide.
36. Note that participation in the TEF will be voluntary for English providers with fewer than 500 undergraduate students and will be voluntary for all providers in Scotland, Wales and Northern Ireland with the consent of the relevant devolved administration.
37. See: York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
38. See: The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
39. One of the most commonly mentioned problems by respondents to the call for views was that the current proxies did not actually measure teaching excellence. Source: York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p36, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>. Some stakeholders (particularly those representing students, consumer interests, employers, FECs and APs) felt the TEF was not measuring teaching or was a poor measure of teaching quality. Source: The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p6, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
40. Based on the 2017 version of the NSS survey, these topics are covered by the questions under the ‘assessment and feedback’ and ‘academic support’ parts of the survey. A full list of the NSS questions can be found at: <https://www.thestudentsurvey.com/>
41. For example, see: Ramsden, P. (1991) ‘A performance indicator of teaching quality in higher education: The Course Experience Questionnaire’, *Studies in Higher Education*, 16(2), pp129–150; Wilson, K. L., Lizzio, A., and Ramsden, P. (1997) ‘The development, validation and application of the Course Experience Questionnaire’, *Studies in Higher Education*, 22(1), pp33–53; Griffin, P., Coates, H., Mcinnis, C., & James, R. (2003) ‘The development of an extended course experience questionnaire’, *Quality in Higher Education*, 9(3), pp259–266.
42. The suggestion to observe teaching as part of the TEF was mentioned several times by respondents to the call for views. Source: York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), pp33, 40, 41, 45, 47, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
43. Ibid, p78.
44. Ibid, pp25, 35, 49.
45. Department for Education (2017) Teaching Excellence and Student Outcomes Framework Specification, pp24, 53–55, <https://www.gov.uk/government/publications/teaching-excellence-and-student-outcomes-framework-specification>
46. A view shared by most groups in the listening sessions was that some form of learning gain should be included in the TEF. Source: The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, pp10, 18, 26 <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>; The most common suggestion by respondents to the call for view for additional criteria was the inclusion of learning gain. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.52, p34, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
47. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.52, p34, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
48. The concerns that TEF did not account for geographical location came out strongly in both the listening sessions and call for views. Sources: The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, pp7, 9, 18, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>; York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), pp16, 31, 38, 43, 46, 93, 95, 96, 98, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
49. Department for Education (2019) Graduate Labour Market Statistics 2018, supporting data on Graduate Breakdowns by characteristic. <https://www.gov.uk/government/statistics/graduate-labour-market-statistics-2018>
50. For the 2016–17 tax year, the median earnings for graduates three years after graduation was £23,300 across the UK compared to £26,400 in London. Source: Department for Education (2019) Graduate outcomes (LEO): regional outcomes 2016 to 2017, Main Tables: 2016–17 tax year, table 2, <https://www.gov.uk/government/statistics/graduate-outcomes-leo-regional-outcomes-2016-to-2017>
51. HM Revenue and Customs (2018) Personal Incomes: tables 3.1 to 3.11 for the tax year 2015 to 2016, table 3.2, <https://www.gov.uk/government/statistics/personal-incomes-tables-31-to-311-for-the-tax-year-2015-to-2016>

52. The median earnings for graduates based in North East, North West, Yorkshire and The Humber, Wales and Northern Ireland was just below £21,500 three years after graduation. Department for Education (2019) Graduate outcomes (LEO): regional outcomes 2016 to 2017, table 2, <https://www.gov.uk/government/statistics/graduate-outcomes-leo-regional-outcomes-2016-to-2017>
53. Based on an analysis of graduates five years after graduation for the 2016–17 tax year. Source: DfE (2019) Graduate outcomes (LEO): regional outcomes 2016 to 2017, Main Text: 2016–17 tax year, pp15–16, <https://www.gov.uk/government/statistics/graduate-outcomes-leo-regional-outcomes-2016-to-2017>
54. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p94, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
55. This is the band 5 starting salary for entry-level nurses with a degree in the NHS. Source: <https://www.rcn.org.uk/employment-and-pay/nhs-pay-scales-2015-16>
56. This is the earnings amount for entry level teachers in England and Wales, excluding London. The earnings for teachers in London were higher and ranged from £22,313 in the fringe areas to £27,819 in inner London. Source: <https://dera.ioe.ac.uk/23874/>
57. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p94, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
58. Please see the Glossary at Appendix G for a description of POLAR.
59. Statistical analysis to select benchmarking factors has been undertaken by the OfS. This analysis was considered by ONS and their commentary on it can be found in section 3.3.2 of the ONS report. Source: Office for National Statistics (2019) Evaluation of the Statistical Elements of the Teaching Excellence and Student Outcomes Framework: A report by the Methodology Advisory Service of the Office for National Statistics, p37, <https://www.gov.uk/government/statistics/evaluation-of-the-statistical-elements-of-the-teaching-excellence-and-student-outcomes-framework>
60. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), pp16, 29, 38, 39, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
61. Please see the Glossary at Appendix G for a definition of flagging, as used in the TEF.
62. Office for National Statistics (2019) Evaluation of the Statistical Elements of the Teaching Excellence and Student Outcomes Framework. A report by the Methodology Advisory Service of the Office for National Statistics, <https://www.gov.uk/government/statistics/evaluation-of-the-statistical-elements-of-the-teaching-excellence-and-student-outcomes-framework>. The scope of their work can be found in section 1.3.1, p22.
63. This concern is reflected in the ‘Metrics’ section of the TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p9, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review> and sections 4.88–4.90 of the York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), pp44–45, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
64. This was reported in section 4.89 of the call for views analysis. Source: York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p45, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>. The risk of placing too much weight on the metrics was also identified by the ONS, who concluded the way metrics are ‘flagged’ in the initial hypothesis made panellists less likely to consider providers for a change in award. Source: Office for National Statistics (2019) Evaluation of the Statistical Elements of the Teaching Excellence and Student Outcomes Framework. A report by the Methodology Advisory Service of the Office for National Statistics, p11, <https://www.gov.uk/government/statistics/evaluation-of-the-statistical-elements-of-the-teaching-excellence-and-student-outcomes-framework>
65. Evidence of this ‘anchoring effect’ was found in the first subject-level pilot, but was referred to as ‘metrics capture’. Panellists felt the burden of proof to shift from the initial hypothesis sometimes felt too heavy and they were reluctant to move their holistic judgement away from the metrics. Office for Students (2018) Teaching Excellence and Student Outcomes Framework Findings from the first subject-level pilot, 2017–18, p20, p35, and Annex B Panel reports, p20, <https://www.officeforstudents.org.uk/publications/teaching-excellence-and-student-outcomes-framework-findings-from-the-first-subject-pilot-2017-18/>
66. Derived by calculating whether the final rating was different from the initial hypothesis in Step 1a, using all (268) current awards (Gold, Silver and Bronze) published on the Office for Students website as at 20 June 2019. Source: Office for Students (2019) TEF Outcomes, <https://www.officeforstudents.org.uk/advice-and-guidance/teaching/tef-outcomes/#/tefoutcomes/>, accessed on 20 June 2019.
67. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p95, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
68. In the listening sessions, APs particularly felt they had to use space in their submission to explain legitimate gaps in metrics rather than telling the story of their unique provision. Source: TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p18, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>. This sentiment is backed up by the findings of the ONS evaluation. They noted that in some cases, supporting evidence is sought in the submissions, in others the submission is used to fill gaps in the metrics data. Source: Office for National Statistics (2019) Evaluation of the Statistical Elements of the Teaching Excellence and Student Outcomes Framework. A report by the Methodology Advisory Service of the Office for National Statistics, p15, <https://www.gov.uk/government/statistics/evaluation-of-the-statistical-elements-of-the-teaching-excellence-and-student-outcomes-framework>
69. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), pp94–95, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
70. The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p14, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
71. Many felt that employment data was ‘too blunt a tool’ and did not recognise the broader social and cultural benefits that HE brought to graduates. Source: York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), pp16, 25, 31, 35, 49, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
72. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p94, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
73. These data limitations were also noted by the ONS. Non-UK students are excluded from the ‘Continuation’ metric because of issues with prior attainment data, and from the LEO metrics because the LEO dataset covers UK tax payers only. Source: Office for National Statistics (2019) Evaluation of the Statistical Elements of the Teaching Excellence and Student Outcomes Framework: A report by the Methodology Advisory Service of the Office for National Statistics, p96, <https://www.gov.uk/government/statistics/evaluation-of-the-statistical-elements-of-the-teaching-excellence-and-student-outcomes-framework>

74. The definition of 'further study' is set out in the TEF Year 4 procedural guidance. Office for Students (2018) Teaching Excellence and Student Outcomes Framework: Year Four procedural guidance, pp63–66, <https://www.officeforstudents.org.uk/publications/teaching-excellence-and-student-outcomes-framework-year-four-procedural-guidance/>
75. TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p10, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
76. The definition of 'higher study' is set out in the guide to the pilot data. Office for Students (2018) Teaching Excellence and Student Outcomes Framework: TEF Guide to subject-level pilot data, pp49–55, <https://www.officeforstudents.org.uk/publications/teaching-excellence-and-student-outcomes-framework-subject-level-pilot-guide/>
77. In defining 'higher study' in the 2018–19 subject-level pilot, the OfS has not included the category of 'professional qualifications' because while it includes study for professions such as accountancy, professional legal training and others where undergraduate study might be expected to fall into this category, the category also includes courses identified as below HE-level.
78. This example was given by a publicly-funded HE provider in their response to the call for views.
79. The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, pp17–18, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
80. Department for Education (2017) Teaching Excellence and Student Outcomes Framework specification, p51, <https://www.gov.uk/government/publications/teaching-excellence-and-student-outcomes-framework-specification>
81. Office for Students (2018) Teaching Excellence and Student Outcomes Framework: Subject-level pilot guide, pp44, 50–51, <https://www.officeforstudents.org.uk/publications/teaching-excellence-and-student-outcomes-framework-subject-level-pilot-guide/>
82. TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p7, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>; and York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the TEF, p46, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
83. A majority of respondents supported retaining key elements of the provider-level framework and concluded that the role of peer review was critical and that independent panels were a vital component of the process. Source: Department for Education (2018) Teaching Excellence and Student Outcomes Framework: subject level, government consultation response, p17, <https://www.gov.uk/government/consultations/teaching-excellence-and-student-outcomes-framework-subject-level>
84. OfS (2018) Teaching Excellence and Student Outcomes Framework: Subject-level pilot guide, table 5, p30, <https://www.officeforstudents.org.uk/publications/teaching-excellence-and-student-outcomes-framework-subject-level-pilot-guide/>; More information about the HE subject coding system can be found on HESA's website: <https://www.hesa.ac.uk/innovation/hecos>
85. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p85, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>; The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p20, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
86. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.218, p85, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>; and The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p20, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
87. TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p20, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
88. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), pp47, 94, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
89. Ibid, p71.
90. Department for Education (2018) TEF and informing student choice: subject-level classifications, and teaching quality and student outcome factors, figure 1.1, p8, <https://www.gov.uk/government/publications/teaching-excellence-framework-and-informing-student-choice>
91. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the TEF, p47, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
92. Ibid, para 4.217, p85; and TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, pp19, 20, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
93. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the TEF, p48, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>; and TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p18, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
94. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF) pp47, 70, 79, 81 and 85 <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>; and The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p13, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
95. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.99, p47, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
96. Ibid, p83–84.
97. The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p19, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
98. Department for Education (2019) Changes to the Teaching Excellence and Student Outcomes Framework – Updated cost estimates, <https://www.gov.uk/government/publications/changes-to-the-teaching-excellence-and-student-outcomes-framework-tef>
99. Ibid.
100. Ibid.

101. The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p20, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>; York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF) pp86, 89–90, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
102. The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p20, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
103. UCAS (2019) Research to support the Independent TEF Review: Surveys of HE applicants, p13, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants>; and York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.238, p90, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
104. Department for Education (2019) Research to support the Independent TEF Review: Surveys of HE applicants, p12, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants>
105. Department for Education (2019) Research to support the Independent TEF Review: Survey of HE careers advisors, p10, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-survey-of-he-careers-advisors>
106. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p53, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>; and TEF review listening session analysis (2019), p13, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
107. Some respondents stated that the subject categories were too broad and did not capture the range of courses within it, which could mislead students. Source: York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), pp47, 85, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
108. The full board paper can be found at <https://www.officeforstudents.org.uk/about/who-we-are/board-papers/ofs-board-meeting-3-july-2019/>
109. Expert panel reporting to the Minister for Education (2019) Performance-Based Funding for the Commonwealth Grant Scheme, <https://docs.education.gov.au/node/52995>
110. For more information, please see: [www.umultirank.org](http://www.umultirank.org)
111. For more information, please see: <https://educationmalaysia.gov.my/setara-rating/>
112. For more information, please see: [https://hedclub.com/en/library/the\\_chinese\\_model\\_of\\_assessingthe\\_quality\\_of\\_higher\\_education\\_112359](https://hedclub.com/en/library/the_chinese_model_of_assessingthe_quality_of_higher_education_112359)
113. Office for National Statistics (2019) Evaluation of the Statistical Elements of the Teaching Excellence and Student Outcomes Framework. A report by the Methodology Advisory Service of the Office for National Statistics, p15, <https://www.gov.uk/government/statistics/evaluation-of-the-statistical-elements-of-the-teaching-excellence-and-student-outcomes-framework>
114. Please see the Glossary at Appendix G for a definition of multiple comparisons.
115. Office for National Statistics (2019) Review of the Statistical Elements of the Teaching Excellence and Student Outcomes Framework, pp62, 81–82, <https://www.gov.uk/government/statistics/evaluation-of-the-statistical-elements-of-the-teaching-excellence-and-student-outcomes-framework>
116. Department for Education (2018) Teaching Excellence and Student Outcomes Framework: Subject-Level Technical document to support the government consultation, pp47–49, <https://consult.education.gov.uk/higher-education-reform/teaching-excellence-and-student-outcomes-framework/>
117. Office for National Statistics (2019) Review of the Statistical Elements of the Teaching Excellence and Student Outcomes Framework, p81, <https://www.gov.uk/government/statistics/evaluation-of-the-statistical-elements-of-the-teaching-excellence-and-student-outcomes-framework>
118. *Ibid*, p82.
119. UCAS (2019) Research to support the Independent TEF Review: Survey of HE applicants, p12, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants>
120. Department for Education (2018) Teaching Excellence and Student Outcomes Framework: subject-level government consultation response, p62, <https://www.gov.uk/government/consultations/teaching-excellence-and-student-outcomes-framework-subject-level>
121. *Ibid*.
122. The number of subject assessments depends on the numbers of providers registered with the OfS, as well as decisions such as how to manage non-reportable data and small cohort sizes and any refinements to the subject categorisation. Source: Office for Students (2018), Teaching Excellence and Student Outcomes Framework: Findings from the first subject pilot, 2017–18, p40, <https://www.officeforstudents.org.uk/publications/teaching-excellence-and-student-outcomes-framework-findings-from-the-first-subject-pilot-2017-18/>
123. The number of providers participating in TEF is expected to be in the range of 300 to 500, with the exact number depending on the number that register with the OfS and how many choose to apply. Under the current regulatory framework in England, TEF will be voluntary for providers with fewer than 500 undergraduate students and all providers in Scotland, Wales and Northern Ireland, with the consent of the devolved administrations.
124. The OfS have calculated this as one-tenth of the number of subject assessments, with 10 subject panels and one main panel as piloted in 2018–19. For more information see Office for Students (2018) Teaching Excellence and Student Outcomes Framework: Subject-level pilot guide, pp52–53, <https://www.officeforstudents.org.uk/publications/teaching-excellence-and-student-outcomes-framework-subject-level-pilot-guide/>
125. Please see the Glossary at Appendix G for a description of the differential degree attainment data used in TEF.
126. Further discussion about other limitations of the data can be found in Chapter 8 on ‘Is it fair?’.
127. Data analysis by the OfS shows there have been unexplained sector-level changes in first and upper second class degree attainment since 2010–11. Source: Office for Students (2019) Analysis of degree classifications over time: Changes in graduate attainment from 2010–11 to 2017–18, <https://www.officeforstudents.org.uk/publications/analysis-of-degree-classifications-over-time/>
128. The What Works Network currently includes a What Works Centre for Educational achievement (the Sutton Trust/Educational Endowment Foundation), but there is no centre specifically focused on HE. See: <https://www.gov.uk/guidance/what-works-network>
129. York Consulting (2019) Analysis of Responses to the Call for Views for the Independent Review of the TEF, pp35–36, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>

130. The learning gain programme was a research project that looked at how to measure improvements in knowledge, skills, work-readiness and personal development made by students during their time in HE. See: <https://www.officeforstudents.org.uk/advice-and-guidance/teaching/learning-gain/>
131. A collection of 13 collaborative projects, involving 70 universities and colleges, tested and evaluated different ways of measuring learning gain. See: <https://www.officeforstudents.org.uk/advice-and-guidance/teaching/learning-gain/learning-gain-pilot-projects/>. Across these projects, nearly 30 approaches were piloted, from which three dimensions were identified: measures of general cognitive gain; soft skills development; and employability and career readiness. Source: Office for Students (2019) Final Evaluation of the Office for Students Learning Gain Pilot Projects, p6, <https://www.officeforstudents.org.uk/publications/lg-pilot-projects-evaluation/>
132. The pilot projects concluded there is no simple 'silver bullet' metric for learning gain that accurately and effectively measures student learning comparatively across subjects of study and institutional types. Ibid.
133. Department for Business, Innovation and Skills (2013) The Benefits of Higher Education Participation for Individuals and Society: key findings and reports 'The Quadrants', [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/254101/bis-13-1-1268-benefits-of-higher-education-participation-the-quadrants.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/254101/bis-13-1-1268-benefits-of-higher-education-participation-the-quadrants.pdf)
134. Of 20 specific factors about teaching excellence and graduate outcomes tested, getting a graduate job after graduation was the most important factor for applicants in deciding where to study and was also most important for students in evaluating the quality of their undergraduate degree. Source: DfE (2018) TEF and informing student choice: subject-level classifications, and teaching quality and student outcome factors see table 1.1, p11, <https://www.gov.uk/government/publications/teaching-excellence-framework-and-informing-student-choice>; See also: Fagence and Hansom (2018) 'Influence of Finance on Higher Education decision-making', p64, <https://www.gov.uk/government/publications/influence-of-financial-factors-on-higher-education-decision-making>
135. Department for Education (2019) Graduate outcomes (LEO): regional outcomes 2016 to 2017, <https://www.gov.uk/government/statistics/graduate-outcomes-leo-regional-outcomes-2016-to-2017>
136. The REF has an audit process to provide assurance that the data submitted are accurate, verifiable and robust. Research Excellence Framework (2019) Audit Guidance, <https://www.ref.ac.uk/publications/audit-guidance-201904/>
137. These are the rating descriptors used by the OfS on their website. Source: <https://www.officeforstudents.org.uk/advice-and-guidance/teaching/what-is-the-tef/>. For the full detailed rating descriptors, please see: Department for Education (2017) Teaching Excellence and Student Outcomes Framework specification, pp 21, 68–69, <https://www.gov.uk/government/publications/teaching-excellence-and-student-outcomes-framework-specification>
138. UCAS (2019) Research to support the Independent TEF Review: Surveys of HE applicants, p6, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants>
139. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), table 4.6, p50, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
140. Ibid.
141. Ibid, para 4.105 p51, para 4.112 p52, para 4.121 p55, para 5.10 p100.
142. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.125, p56, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
143. The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p11, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>; and York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p15, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
144. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.120, p55, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
145. Ibid, para 4.124, p56.
146. Ibid, p53. This was also suggested by the main panel in the 2017–18 subject-level pilot. Source: Office for Students (2018) Teaching Excellence and Student Outcomes Framework: Findings from the first subject pilot, 2017–18, p24, <https://www.officeforstudents.org.uk/publications/teaching-excellence-and-student-outcomes-framework-findings-from-the-first-subject-pilot-2017-18/>
147. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p53, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
148. Receiving a narrative about strengths and weaknesses was suggested by some as an alternative to the rating system. Source: York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.143 p60 and para 4.148 p62, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
149. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), table 4.8, p57, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
150. Ibid, pp51, 57.
151. The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, pp11, 24, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>; York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 5.10, p100 <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
152. UCAS (2019) Research to support the Independent TEF Review: Surveys of HE applicants, p13, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants>
153. IFF Research on behalf of the DfE (2019) Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape, p13, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>; and UUK (2019) The future of the TEF: report to the independent reviewer, p31, <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/future-of-the-tef.aspx>
154. The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p22, 24, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>

155. British Council (2019) International Perceptions of the Teaching Excellence and Student Outcomes Framework, pp4, 14, <https://www.britishcouncil.org/research-policy-insight/research-reports/independent-review-of-tef>
156. Communication about what this means for the devolved administrations will be important. Where the quality system includes elements of enhancement (for example, the Quality Enhancement Framework in Scotland), TEF may re-affirm levels of excellence already identified through the QA system, rather than being 'above' the QA outcome. As set out in Chapter 2 on 'purpose', future development of TEF should involve close communication across the devolved administrations to maximise opportunities for complementarity and integration.
157. The name was felt to be misleading because TEF does not measure 'teaching'. Sources: The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p5, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>; York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p49, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>; and UCAS (2019) Research to support the Independent TEF Review: Surveys of HE applicants, p13, <https://www.gov.uk/government/publications/research-to-support-the-independent-tef-review-surveys-of-he-applicants>
158. This is set out in Chapter 4 on 'the assessment process'. See sections on 'concerns about the data used and the way it is analysed' and 'fairness of the process for an increasingly diverse sector'.
159. Ibid.
160. This is set out in Chapter 4 on 'the assessment process'. See the section on 'fairness of the process for an increasingly diverse sector'.
161. For more information about Indices of Multiple Deprivation, please see: <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015>
162. This is set out in Chapter 4 on 'the assessment process'. See the section on 'fairness of the process for an increasingly diverse sector'.
163. This is set out in Chapter 4 on 'the assessment process'. See the section on 'fairness of the process for an increasingly diverse sector'.
164. Post-18 Review of Education and Funding Independent Panel (2019) Post-18 review of education and funding: independent panel report, p64, <https://www.gov.uk/government/publications/post-18-review-of-education-and-funding-independent-panel-report>
165. Counts include all UK HEIs. Source: Universities UK (2017) The economic impact of universities in 2014–15, p2, <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2017/the-economic-impact-of-universities.pdf>
166. HESA (2019) Who's working in HE? <https://www.hesa.ac.uk/data-and-analysis/staff/working-in-he>
167. This includes spending on fee income and living expenditure and excludes Scholarships awarded and the cost to government of EU tuition fee loans. In 2016, HE accounted for 67% of total UK revenue from education-related exports and transnational activity. Source: DfE (2019) UK revenue from education related exports and transnational education activity in 2016, p6, <https://www.gov.uk/government/statistics/uk-revenue-from-education-related-exports-and-tne-activity>
168. HEPI (2019) Just one cohort of international students who stay in the UK to work pay £3.2 billion in tax – and they aren't taking jobs from UK citizens, <https://www.hepi.ac.uk/2019/03/21/just-one-cohort-of-international-students-who-stay-in-the-uk-to-work-pay-3-2-billion-in-tax-and-they-arent-taking-jobs-from-uk-citizens/>
169. Universities UK (2015) The Economic Role of UK Universities, <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2015/the-economic-role-of-uk-universities.pdf>
170. UPP Foundation (2019) Truly Civic: Strengthening the connection between universities and their places, p25, <https://upp-foundation.org/wp-content/uploads/2019/02/Civic-University-Commission-Final-Report.pdf>
171. Viewforth Consulting (2018) An Elephant in the Room: The hidden economic value of public engagement and knowledge exchange in UK universities, p2, <http://www.viewforthconsulting.co.uk/sitebuildercontent/sitebuilderfiles/Theelephantintheroom.pdf>
172. See: Department for Education (2019) Changes to the Teaching Excellence and Student Outcomes Framework – Updated cost estimates, <https://www.gov.uk/government/publications/changes-to-the-teaching-excellence-and-student-outcomes-framework-tef>
173. Participants in the public interest seminar included representatives from UUK, NUS, British Universities Finance Directors Group, Association of Heads of University Administration and HEPI; as well as the Deputy Vice-Chancellor for University of Reading, Pro-Vice-Chancellor for University of Brighton and Deputy Vice-Chancellor / PVC-Academic for University of East Anglia.
174. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.22, p24, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
175. IFF Research on behalf of the DfE (2019) Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>
176. A 'TEF contact' is a staff member with responsibility for co-ordinating their provider's participation in the TEF.
177. An 'academic contact' is an academic staff member who was put forward by their institution as a contact for the purpose of the research project.
178. These specific impacts included positive, neutral and negative impacts. A full list of the specific impacts is listed in their report. See: IFF Research on behalf of the DfE (2019) Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape, table 3.1, p32, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>
179. Note that this figure does not show all of the impacts tested by IFF Research. It shows a selection of impacts that reflect positive benefits that relate to enhancement.
180. UUK (2017) Review of the Teaching Excellence Framework Year 2, <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/review-of-tef-year-2.aspx>
181. Ibid, p28.
182. Ibid, pp25–26.
183. Ibid.
184. Department for Education (2019) Changes to the Teaching Excellence and Student Outcomes Framework – Updated cost estimates, para 11, p5, <https://www.gov.uk/government/publications/changes-to-the-teaching-excellence-and-student-outcomes-framework-tef>

185. The maximum fee for a standard full-time course is £9,250 for the 2019/20 academic year in England – this maximum level will be maintained for the 2020/21 academic year. For information on fees for all part-time and full-time undergraduate students see: HC Deb 23 July 2019 WS1793, <https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2019-07-23/HCWS1793/>. Note the maximum fee cap for home-domiciled students in Wales is £9,000 for academic year 2019/20 and, in Scotland, eligible home-domiciled students at public universities have the full cost of their tuition fees met by the Student Awards Agency Scotland.
186. This is calculated based on the 2018–19 Plan 2 full-time RAB charge (47%), multiplied by the 2018–19 outlay for Plan 2 undergraduate full-time loans (£15.3 billion). Source: Department for Education, Student loan forecasts, England: 2018 to 2019, tables 3 and 4, <https://www.gov.uk/government/statistics/student-loan-forecasts-england-2018-to-2019>
187. Institute for Fiscal Studies (2018) 2018 annual report on education spending in England, p62, <https://www.ifs.org.uk/publications/13306>
188. For more information on TRAC data, please see <https://www.officeforstudents.org.uk/data-and-analysis/trac-data/>
189. IFF Research on behalf of the DfE (2019) Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>
190. UUK (2019) The future of the TEF: report to the independent reviewer, <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/future-of-the-tef.aspx>
191. University and College Union (2019) Understanding, recognising and rewarding teaching quality in higher education: an exploration of the impact and implications of the Teaching Excellence Framework, <https://www.ucu.org.uk/media/10092/Impact-of-TEF-report-Feb-2019/pdf/ImpactofTEFreportFeb2019>
192. IFF Research on behalf of the DfE (2019) Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape, figure 3.8, p46, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>
193. University and College Union (2019) Understanding, recognising and rewarding teaching quality in higher education: an exploration of the impact and implications of the Teaching Excellence Framework, pp63–64, <https://www.ucu.org.uk/media/10092/Impact-of-TEF-report-Feb-2019/pdf/ImpactofTEFreportFeb2019>
194. IFF Research on behalf of the DfE (2019) Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape, figure 3.6, p42, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>
195. *Ibid*, para 1.13, p11.
196. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), p58, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>; University and College Union (2019) Understanding, recognising and rewarding teaching quality in higher education: an exploration of the impact and implications of the Teaching Excellence Framework, p60, <https://www.ucu.org.uk/media/10092/Impact-of-TEF-report-Feb-2019/pdf/ImpactofTEFreportFeb2019>; The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p24, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
197. IFF Research on behalf of the DfE (2019) Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape, figure 3.7, p44 and figure 3.8, p46, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>
198. *Ibid*.
199. *Ibid*, p44.
200. York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.192, p76, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>; The TEF Independent Review (2019) An overview of the listening sessions informing the TEF Review, p5, <https://www.gov.uk/government/publications/summary-of-the-listening-sessions-for-the-tef-independent-review>
201. IFF Research on behalf of the DfE (2019) Evaluation of Provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape, figure 3.8, p46, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>
202. *Ibid*, figure 3.6, p42.
203. University and College Union (2019) Understanding, recognising and rewarding teaching quality in higher education: an exploration of the impact and implications of the Teaching Excellence Framework, p6, <https://www.ucu.org.uk/media/10092/Impact-of-TEF-report-Feb-2019/pdf/ImpactofTEFreportFeb2019>
204. UUK (2019) The future of the TEF: report to the independent reviewer, para 4.173, p34, <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/future-of-the-tef.aspx>; York Consulting (2019) Analysis of responses to the call for views for the Independent Review of the Teaching Excellence and Student Outcomes Framework (TEF), para 4.173, p70, <https://www.gov.uk/government/consultations/independent-review-of-tef-call-for-views>
205. IFF Research on behalf of the DfE (2019) Evaluation of provider-level TEF 2016–17 (Year 2) Measuring the initial impact of the TEF on the Higher Education landscape, figure 3.8, p46, <https://www.gov.uk/government/publications/evaluation-of-provider-level-tef-2016-to-2017-year-2>
206. University and College Union (2019) Understanding, recognising and rewarding teaching quality in higher education: an exploration of the impact and implications of the Teaching Excellence Framework, p65, <https://www.ucu.org.uk/media/10092/Impact-of-TEF-report-Feb-2019/pdf/ImpactofTEFreportFeb2019>
207. Department for Education (2019) Changes to the Teaching Excellence and Student Outcomes Framework – Updated cost estimates, <https://www.gov.uk/government/publications/changes-to-the-teaching-excellence-and-student-outcomes-framework-tef>
208. The location of the provider is based on the main registered address of the provider, therefore this analysis does not take into account that some providers have campuses in more than one region.
209. Metrics may be non-reportable because there were fewer than 10 students in the population, low response rates to the survey collecting the data underlying a metric, insufficient data to form a benchmark, or suppressed for data protection reasons.
210. For both LEO metrics for full-time study, 27% of metrics are non-reportable. For part-time study, 33% and 31% are non-reportable for the salary threshold and sustained employment metrics respectively.
211. See for example HMRC (2019) Statistics about personal incomes, Personal incomes: tables 3.12 to 3.15a for 2015 to 2016, p7, <https://www.gov.uk/government/collections/personal-incomes-statistics>

212. The full ONS report can be found at <https://www.gov.uk/government/statistics/evaluation-of-the-statistical-elements-of-the-teaching-excellence-and-student-outcomes-framework>
213. <https://www.hesa.ac.uk/innovation/outcomes/survey> accessed August 2019.



