Utility of rankings within providers

Explaining results to colleagues, using the tables as a context to performance, how metrics can support institutional research

Explaining institution results

- Performance is not our main objective
- Don’t start with the institution metrics
- Take the conversation to subject level
- Understand the influence of each datapoint

Performance /Quality /Suitability

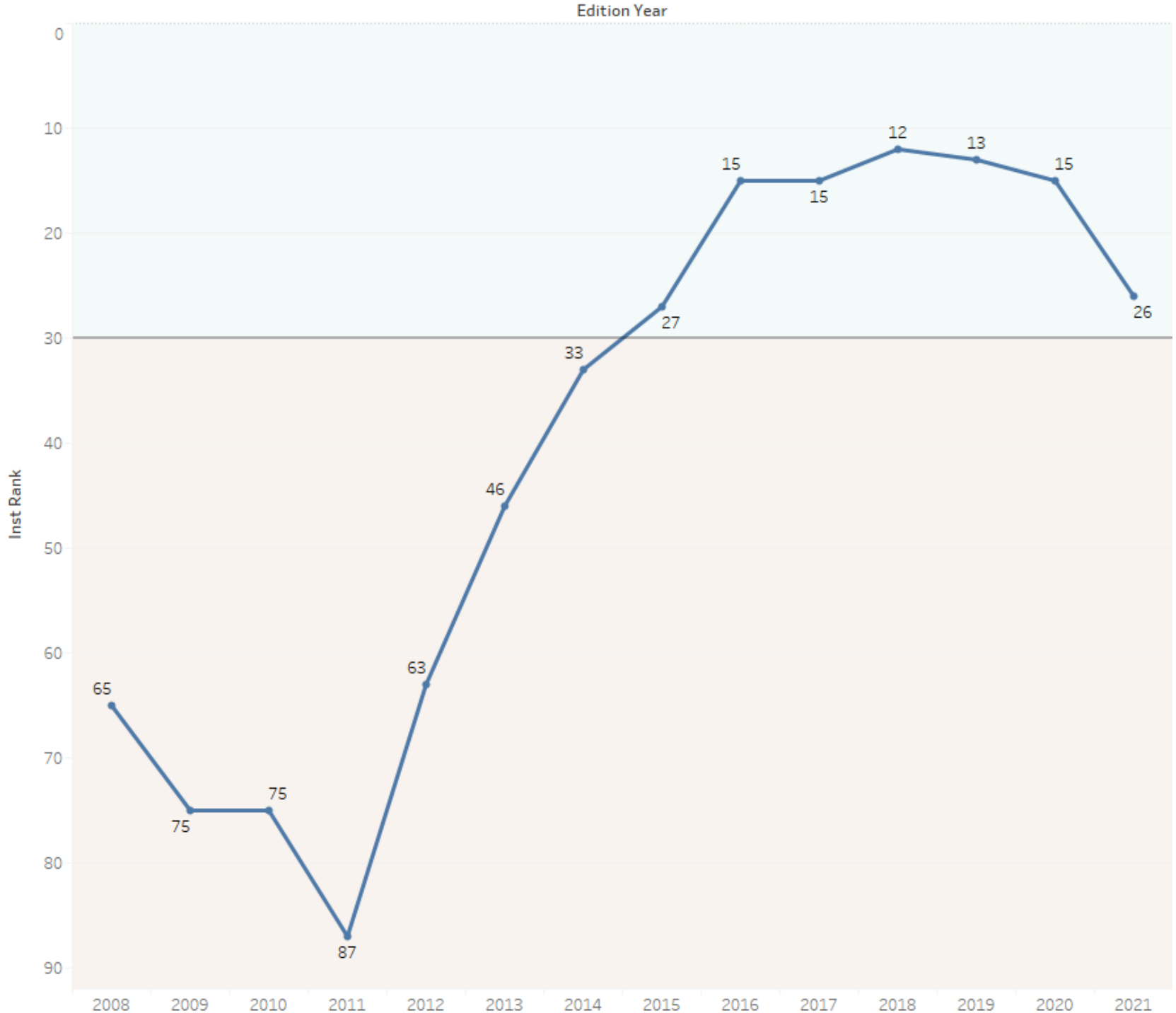
- Some metrics are input measures – they don't indicate performance or quality
- Most metrics have no benchmark or expectation – latent advantage is not distinguished from high performance
- Your governing body (and maybe your executive) will not care about this distinction!

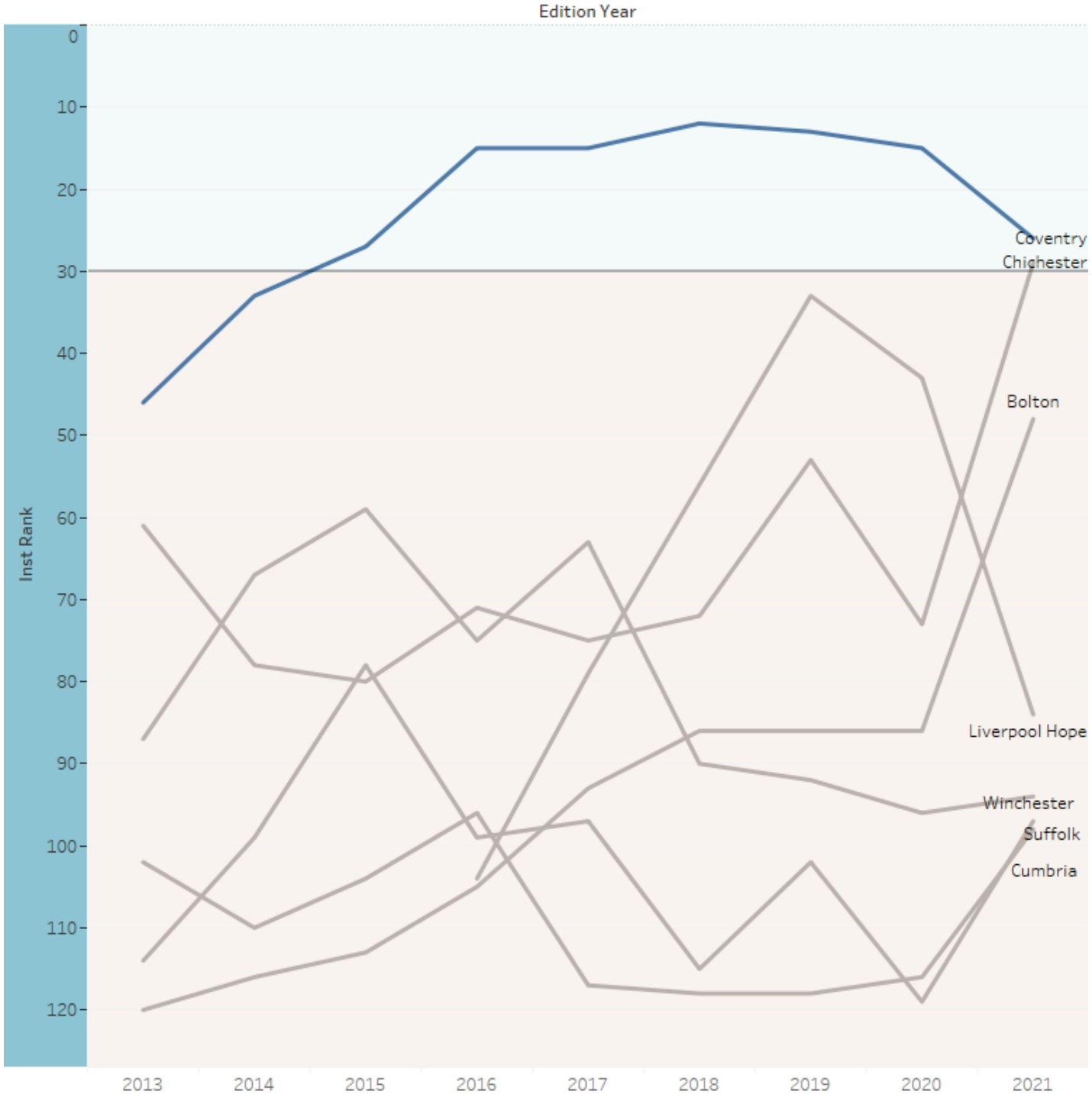
Don’t start with the institution metrics

- They don’t account for subject mix
- They aren’t necessarily even the average of the subject metrics
- They don’t directly affect institution performance

What is the institution table useful for?

- Tracking performance over time
  - But don't refer to the scores
- Contextual performance relative to peer institutions
- Identifying providers with similar missions whose performance would be good to emulate



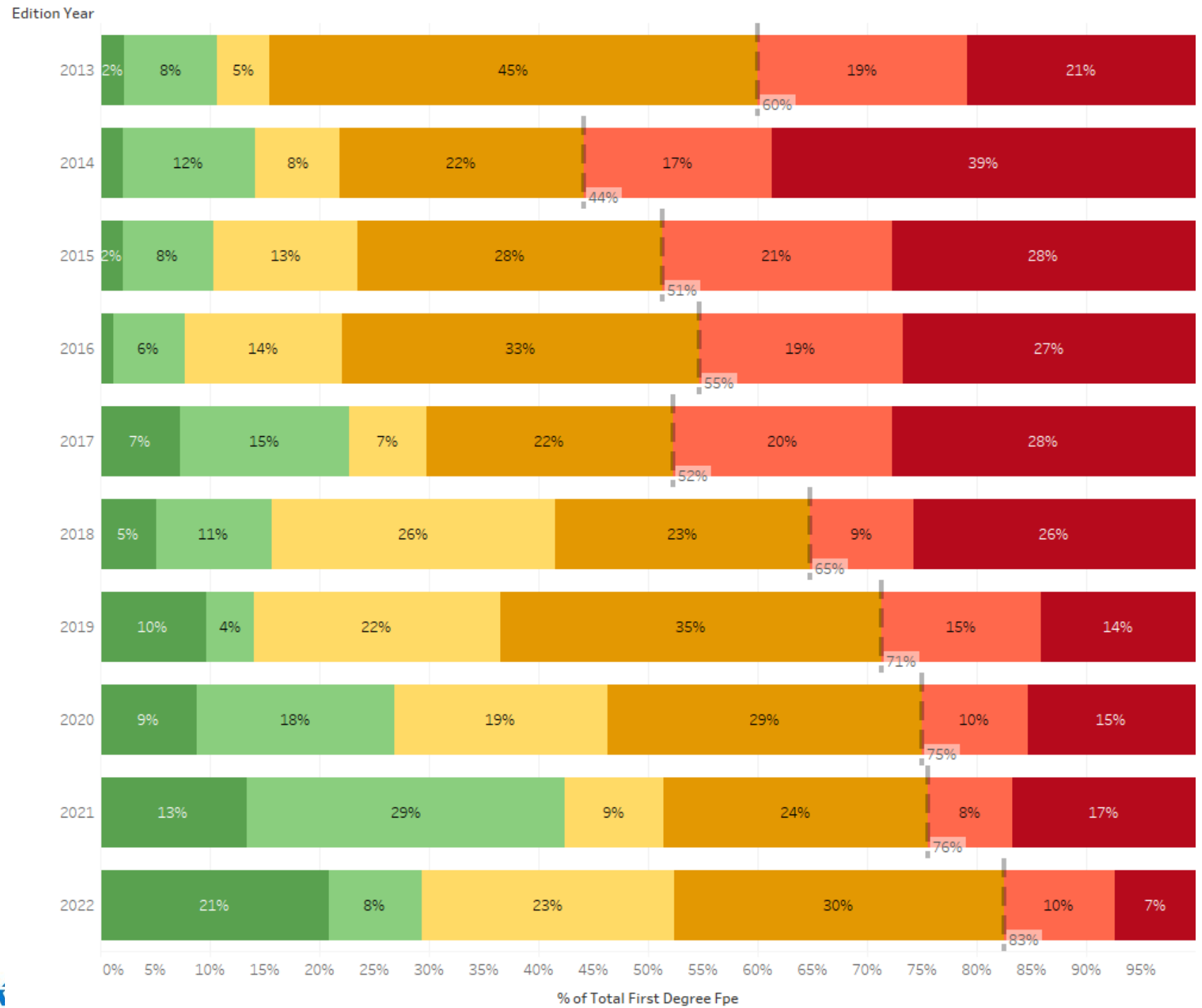


Take the conversation to a subject level

- Show the movements at subject level
- Convey their relative importance
- Identify the weakpoints that matter most

Year of publication

Gsg Id	Guardian Subject ..	2014	2015	2016	2017	2018	2019	2020	2021
S050	S050: Nursing & Midwifery	40 / 68 third quartile	51 / 70 third quartile	63 / 69 Bottom decile	67 / 69 Bottom decile	60 / 69 Bottom quartile	68 / 71 Bottom decile	62 / 70 Bottom quartile	38 / 73 third quartile
S060	S060: Social Work	63 / 73 Bottom quartile	59 / 76 Bottom quartile	71 / 76 Bottom decile	55 / 76 third quartile	76 / 77 Bottom decile	78 / 78 Bottom decile	49 / 74 third quartile	53 / 81 third quartile
S070	S070: Health Professions	9 / 68 Top quartile	9 / 68 Top quartile	3 / 70 Top decile	26 / 71 second quartile	30 / 72 second quartile	41 / 75 third quartile	12 / 75 Top quartile	10 / 71 Top quartile
S080	S080: Psychology			108 / 112 Bottom decile	69 / 114 third quartile	93 / 115 Bottom quartile	105 / 116 Bottom decile	113 / 115 Bottom decile	114 / 115 Bottom decile
S090	S090: Pharmacy & Pharmacology	18 / 28 third quartile	14 / 31 second quartile	23 / 33 third quartile	31 / 35 Bottom quartile	18 / 37 second quartile	31 / 40 Bottom quartile	38 / 38 Bottom decile	33 / 38 Bottom quartile
S100	S100: Biosciences	76 / 99 Bottom quartile	60 / 102 third quartile	74 / 101 third quartile	80 / 102 Bottom quartile	60 / 104 third quartile	92 / 102 Bottom decile	102 / 105 Bottom decile	93 / 102 Bottom decile
S110	S110: Chemistry	50 / 51 Bottom decile	35 / 52 third quartile	46 / 52 Bottom quartile	23 / 53 second quartile	31 / 54 third quartile	28 / 55 third quartile	43 / 53 Bottom quartile	21 / 52 second quartile
S140	S140: Earth & Marine Sciences	34 / 37 Bottom decile	29 / 37 Bottom quartile	31 / 36 Bottom quartile	34 / 34 Bottom decile	35 / 36 Bottom decile	33 / 34 Bottom decile	29 / 34 Bottom quartile	35 / 36 Bottom decile
S160	S160: Engineering: General	20 / 22 Bottom decile	21 / 21 Bottom decile	21 / 21 Bottom decile	20 / 20 Bottom decile	21 / 21 Bottom decile	21 / 22 Bottom decile	23 / 28 Bottom quartile	
S190	S190: Engineering: Mechanical						66 / 67 Bottom decile	60 / 69 Bottom quartile	65 / 70 Bottom decile
S200	S200: Engineering: Civil	38 / 47 Bottom quartile	44 / 48 Bottom decile	41 / 48 Bottom quartile	32 / 50 third quartile	23 / 52 second quartile	47 / 51 Bottom decile	53 / 53 Bottom decile	48 / 52 Bottom decile
S210	S210: Engineering: Electronic & Electrical		64 / 66 Bottom decile	62 / 63 Bottom decile	61 / 61 Bottom decile	59 / 62 Bottom decile	57 / 59 Bottom decile	53 / 60 Bottom quartile	57 / 61 Bottom decile
S220	S220: Computer Science	88 / 102	80 / 104	86 / 102	89 / 102	102 / 106	102 / 105	92 / 109	97 / 111



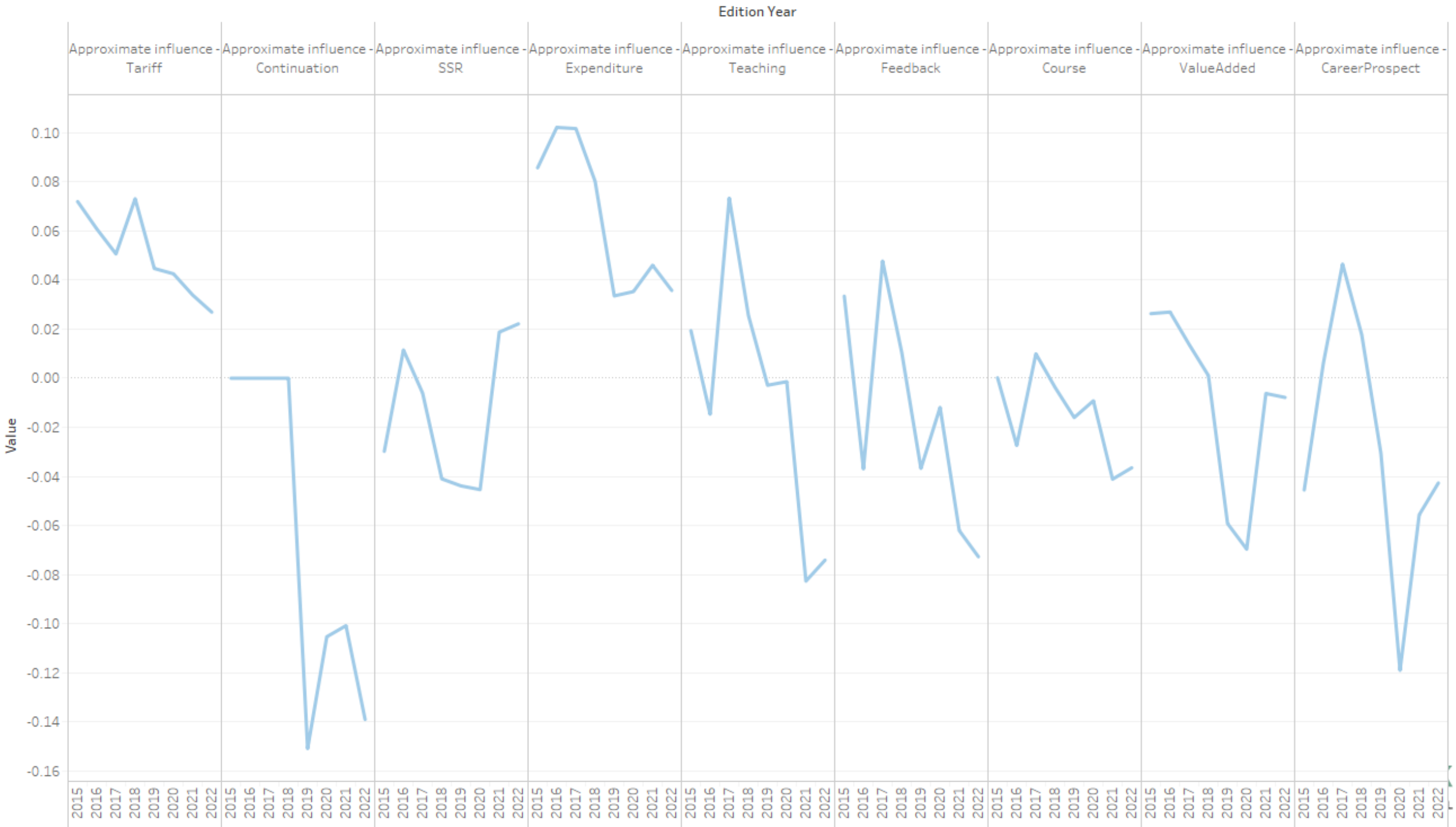
Understand the influence of each datapoint

- Accept there is some degree of error
- Standardise all metrics
- Apply an appropriate weighting

		Subject Performance					Weightings for institutional level			
							=LN(H4)	=G4/SUMIF($I$8:$I$17,">0",$G$8:$G$17)	=F4*L4*M4	=L4*M4
		Performance	Full time first degree fpe	Number of providers	Rank	Total score	natural Log	percentage of ranked population	Performance * weights	Weights
Provider A	Subject 1	-0.5378	79	110	47	57.7	4.70	9%	-0.223	0.414
	Subject 2	0.9063	58	44	8	81.8	3.78	6%	0.222	0.245
	Subject 3	0.0095	66	86	29	66.8	4.45	7%	0.003	0.328
	Subject 4	-1.1432	114	8	4	47.6	2.08	13%	-0.302	0.264
	Subject 5	0.5865	135	63	15	76.4	4.14	15%	0.366	0.624
	Subject 6	0.3571	139	118	32	72.6	4.77	15%	0.264	0.739
	Subject 7	-0.0370	106	51	17	66.1	3.93	12%	-0.017	0.465
	Subject 8	1.1832	139	15	2	86.4	2.71	15%	0.497	0.420
	Subject 9	0.3525	61	65	18	72.5	4.17	7%	0.100	0.284
	Subject 10	null	75	39	null	null	3.66			
	Total countable		897					100%	0.91	3.78
	Total		972						=N21/O21	0.2404

Understand the influence of each datapoint

- Accept there is some degree of error
- Standardise all metrics
- Apply an appropriate weighting
- Display this and attempt to explain what it means


Edition Year
Approximate influence - Tariff
Approximate influence - Continuation
Approximate influence - SSR
Approximate influence - Expenditure
Approximate influence - Teaching
Approximate influence - Feedback
Approximate influence - Course
Approximate influence - ValueAdded
Approximate influence - CareerProspect
Value
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06
-0.08
-0.10
-0.12
-0.14
-0.16
2015
2016
2017
2018
2019
2020
2021
2022

Which metrics support institutional research

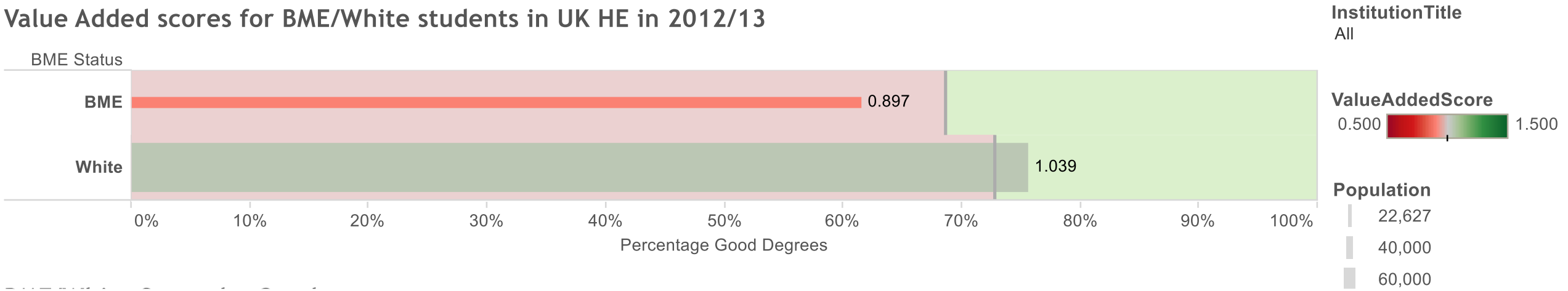
Approaches to finding your own truths about your institution’s patterns of activity

General approach

- Get into more detail than is published
- Use the DDS preview from JISC/HESA
- Replicate from your own HESA returns
- Drill to weakest performance
- Compare student types

Metric-specific institutional research

- Value added scores → the BAME attainment gap



- Tariff scores → different qualification categories
- Continuation indices → relationship with entry standards

Affecting the rankings

Finding improvements, correcting errors, and interacting with the process

Addressing performance

- Use league tables as an external imperative that gets attention
- But translate the information that we show into data that is more meaningful internally
- Replicate using internal data sources
- Use a different metric (sometimes)
- Prioritise attention

Interacting with the compilation process

- The mapping exercise
- The DDS preview
- The participation preview
- Non-credible data points
- The course directory

Extra methodology detail

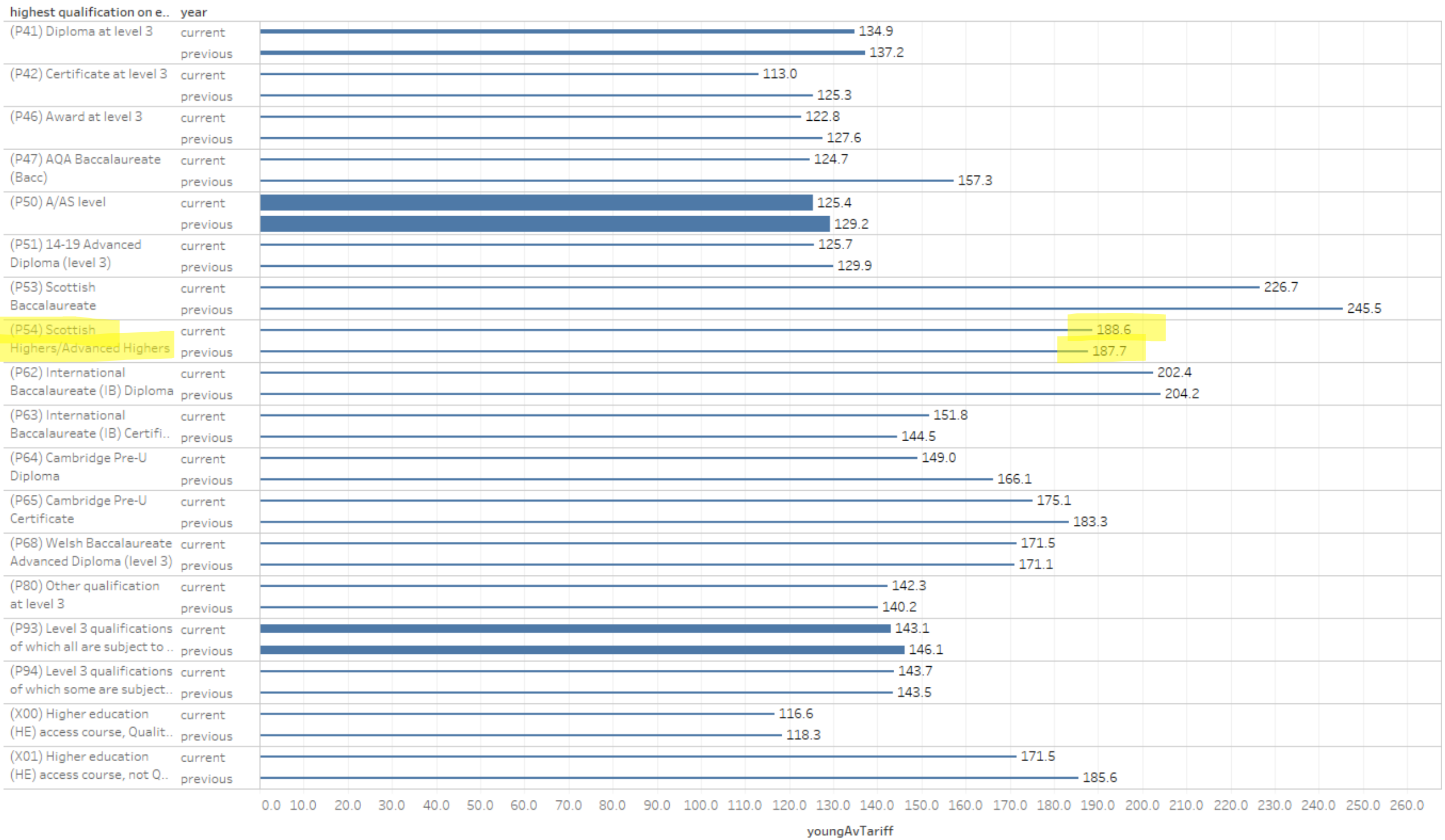
Changes in the 2022 guide

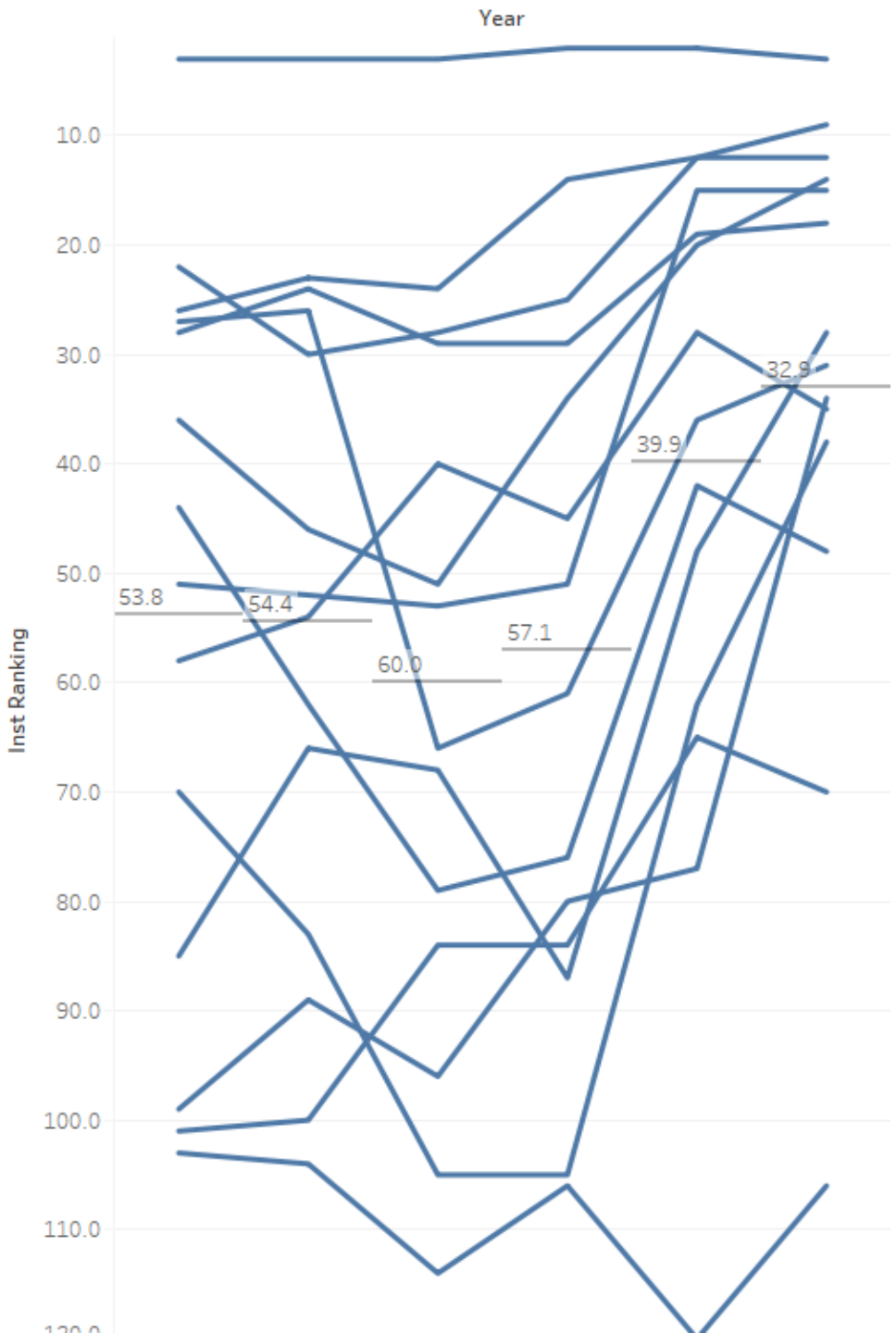
Methodology changes

- The National Student Survey
- HECOS codes
- Career prospects
- Continuation Index
  - Weighting
  - Medical subjects
- Standardisation
  - Tight distributions
  - Scottish Highers / Advanced Highers

intelligentMETRIX®

HEIRNETWORK
HIGHER EDUCATION INSTITUTIONAL RESEARCH NETWORK


highest qualification on e..
year
(P41) Diploma at level 3
current
134.9
previous
137.2
(P42) Certificate at level 3
current
113.0
previous
125.3
(P46) Award at level 3
current
122.8
previous
127.6
(P47) AQA Baccalaureate (Bacc)
current
124.7
previous
157.3
(P50) A/AS level
current
125.4
previous
129.2
(P51) 14-19 Advanced Diploma (level 3)
current
125.7
previous
129.9
(P53) Scottish Baccalaureate
current
226.7
previous
245.5
(P54) Scottish Highers/Advanced Highers
current
188.6
previous
187.7
(P62) International Baccalaureate (IB) Diploma
current
202.4
previous
204.2
(P63) International Baccalaureate (IB) Certifi..
current
151.8
previous
144.5
(P64) Cambridge Pre-U Diploma
current
149.0
previous
166.1
(P65) Cambridge Pre-U Certificate
current
175.1
previous
183.3
(P68) Welsh Baccalaureate Advanced Diploma (level 3)
current
171.5
previous
171.1
(P80) Other qualification at level 3
current
142.3
previous
140.2
(P93) Level 3 qualifications of which all are subject to ..
current
143.1
previous
146.1
(P94) Level 3 qualifications of which some are subject..
current
143.7
previous
143.5
(X00) Higher education (HE) access course, Qualit..
current
116.6
previous
118.3
(X01) Higher education (HE) access course, not Q..
current
171.5
previous
185.6
0.0 10.0 20.0 30.0 40.0 50.0 60.0 70.0 80.0 90.0 100.0 110.0 120.0 130.0 140.0 150.0 160.0 170.0 180.0 190.0 200.0 210.0 220.0 230.0 240.0 250.0 260.0
youngAvTariff



Consequences for rankings

- Scottish providers moved from an average ranking of 57th to an average of 40th in the 2020 publication.
- This was largely driven by the tariff metric
- Provisional results for this year's guide, which had not been through validation, showed that the climb was expected to continue

Standardisation for tariffs

- We do not adjust the tariff that is displayed or used in the rankings
- When standardising, we adjust the mean against which each tariff is compared
- Each department has p – the proportion of students in the tariff score population who had a Scottish Higher/Advanced Highers as their highest qualification on entry
- 52 is the advantage associated with each student who entered with these qualifications
- D is a discount factor to limit further advantage rather than completely reverse it. It is set to 1/3.
- Instead of standardising with respect to a subject mean tariff T, every department is standardised with respect to T+(p x 52 x D)

Questions (and Answers)

Questions about the methodology. Don’t ask about the results that will be published tomorrow!