

**Office for
Students**



HESA AP data checking tool

2017-18

Final year outcome metrics technical document

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2017-18 Final year outcome metrics algorithms

Summary

1. This document details the algorithms applied to the 2016-17 (including amendments where appropriate) and 2017-18 HESA AP Student record which are used to calculate the final year outcome metrics.
2. This document is aimed at readers with in-depth knowledge of the data. Readers are advised to have a copy of the HESA AP Student Record Coding Manual 2017-18 and 2016-17 to hand when using this document.

HESA fields used in the outcome metrics

3. Only certain fields, detailed in Table 1, were used to generate the derived fields.
4. Throughout this document, fields taken or derived from the HESA AP student record are shown in capitals using the names given in Tables 1 and 2 respectively.

Using the individualised file

5. When working through this document it is necessary to use the individualised file FYOUTCOME17_DCT_XXXXXXXXX_IND.csv, where XXXXXXXXX is the UKPRN. This will show the allocation of students to cells within the output and, where relevant, details of why they were excluded from the output.

Table 1 HESA fields used in the final year outcome metrics

Entity	Field	Description
Course	COURSEAIM	General qualification aim of course
Course	COURSEID [†]	Course identifier
Instance	COMDATE	Start date of instance
Instance	ENDDATE	End date of instance
Instance	NUMHUS	Student instance identifier
Instance	RSNEND	Reason for ending instance
Instance	SPLENGTH	Expected length of study
Instance	UNITLGTH	Units of length
Instance	XLEV501	Level of study - 5 way split
Instance	XMODE01**	Mode of study
Instance	XMODE02‡	Mode of study
Instance	XPSES01	Session population indicator
Instance period/Instance [◊]	NOTACT	Not in active study
Instance period	PERIODSTART ^{†‡}	Instance period start date

Entity	Field	Description
Instance period/Instance [◇]	YEARPRG	Year of course
Instance period/Instance [◇]	YEARSTU	Year of students on this instance
Qualifications awarded	QUAL	Qualification awarded
Provider	UKPRN	UK Provider Reference Number
Student	HUSID	HESA unique student identifier

* The individualised file FYOUTCOME17_DCT_AXXXXXXXXX_IND.csv, downloadable as an IRIS output from the HESA data collection system.

† These fields are not used in the metrics but are included in the individualised file to allow easy identification of students.

‡ This field is only relevant to providers making a HESA AP student return.

** This field is only relevant to providers making a full HESA student return.

◇ This field comes from the Instance period entity for providers making a HESA AP student return and from the Instance entity for providers making a full HESA student return.

Description of derived fields for re-creating metrics

6. Here we give details of the derived fields in the individualised file. These fields are used in the calculation of the metrics.

Table 2 Final year outcome metrics derived fields

Derived field name	Description	Paragraph
COMDATEXX	Start date of instance for the year denoted by XX	8
COURSEAIMXX	General qualification aim of course for the year denoted by XX	9
COURSEIDXX†	Course identifier for the year denoted by XX	10
ENDDATEXX	End date of instance for the year denoted by XX	11
NOTACTXX	Not in active study for the year denoted by XX	12
PERIODSTARTXX†‡	Instance period start date for the year denoted by XX	13
QUALXX_1-2	Qualification awarded for the year denoted by XX	14
RSNENDXX	Reason for ending instance for the year denoted by XX	15
SPLENGTHXX	Expected length of study for the year denoted by XX	16
UNITLGTHXX	Units of length for the year denoted by XX	17
XLEV501XX	Level of study - 5 way split for the year denoted by XX	18
XMODEXX	Mode of study for the year denoted by XX	19
XPSES01XX	Session population indicator for the year denoted by XX	20
YEARPRGXX	Year of course for the year denoted by XX	21
YEARSTUXX	Year of students on this instance for the year denoted by XX	22
FYOUTYEAR	Indicates which year's data is used	23
FYOUTCOMDATE	Start date of instance used for metrics	24
FYOUTCOURSEAIM	General qualification aim of course used for metrics	25
FYOUTCOURSEID†	Course identifier used for metrics	26
FYOUTENDDATE	End date of instance used for metrics	27
FYOUTNOTACT	Not in active study used for metrics	28
FYOUTQUAL1-2	Qualification awarded	29

Derived field name	Description	Paragraph
FYOUTRSNEND	Reason for ending instance used for metrics	30
FYOUTSPLENGTH	Expected length of study used for indicator	31
FYOUTUNITLGTH	Units of length used for metrics	32
FYOUTXLEV501	Level of study - 5 way split used for metrics	33
FYOUTXMODE	Mode of study used for metrics	34
FYOUTYEARPRG	Year of course used for metrics	35
FYOUTYEARSTU	Year of students on this instance used for metrics	36
CRSLGTH	Expected length of the course in years	37
YEARADJ	Year adjustment to be used in the calculation of the expected end date	38
FYOUTEXPEND	Expected end date of instance	39
FYOUTEXPENDSIX	Expected end date of instance plus six months	40
FYOUTAIMRANK	Rank of course aim	49
EXCL1-32	Exclusions reasons	41– 46
FYOUTEXCL	Reason(s) for exclusion from metrics population	47– 48
FYOUTQUALRANK1-2	Rank of qualification achieved	50
FYOUTRESULT	Outcome metric	51

* The individualised file FYOUTCOME17_DCT_AXXXXXXXX_IND.csv, downloadable as an IRIS output from the HESA data collection system.

† These fields are not used in the metrics but are included in the individualised file to allow easy identification of students.

‡ This field is only relevant to providers making a HESA AP student return.

Instance period data

- The number of instance periods that can be returned for a given instance is unbounded; however, for these metrics the latest instance period in the reporting year has been used.

COMDATEXX

- This field contains the start date of the instance (COMDATE) for the year denoted by XX, for example COMDATE16 contains COMDATE for 2016-17.

COURSEAIMXX

- This field contains the general qualification aim of the course (COURSEAIM) for the year denoted by XX, for example COURSEAIM16 contains COURSEAIM for 2016-17.

COURSEIDXX

- This field contains the course identifier (COURSEID) for the year denoted by XX, for example COURSEID16 contains COURSEID for 2016-17.

ENDDATEXX

11. This field contains the end date of the instance (ENDDATE) for the year denoted by XX, for example ENDDATE16 contains ENDDATE for 2016-17.

NOTACTXX

12. This field contains the not in active study indicator (NOTACT) for the year denoted by XX, for example NOTACT16 contains NOTACT for 2016-17.

PERIODSTARTXX

13. This field contains the instance period start date (PERIODSTART) for the year denoted by XX, for example PERIODSTART16 contains PERIODSTART for 2016-17. It is only relevant to providers making a HESA AP student return.

QUALXX_1-2

14. This field contains the qualification awarded (QUAL) for the year denoted by XX, for example QUAL16_1 contains the first QUAL recorded for 2016-17.

RSNENDXX

15. This field contains the reason for ending instance (RSNEND) for the year denoted by XX, for example RSNEND16 contains RSNEND for 2016-17.

SPLENGTHXX

16. This field contains the expected length of study (SPLENGTH) for the year denoted by XX, for example SPLENGTH16 contains SPLENGTH for 2016 17.

UNITLGTHXX

17. This field contains the unit of length (UNITLGTH) for the year denoted by XX, for example UNITLGTH16 contains UNITLGTH for 2016-17.

XLEV501XX

18. This field contains the level of study (XLEV501) for the year denoted by XX, for example XLEV50116 contains XLEV501 for 2016-17.

XMODEXX

19. This field contains the mode of study (XMODE02) for the year denoted by XX, for example XMODE16 contains XMODE02 for 2016-17. For providers making a full HESA student return this field will use XMODE01.

XPSES01XX

20. This field contains the session population indicator (XPSES01) for the year denoted by XX, for example XPSES0116 contains XPSES01 for 2016-17.

YEARPRGXX

21. This field contains the year of course (YEARPRG) for the year denoted by XX, for example YEARPRG16 contains YEARPRG for 2016-17.

YEARSTUXX

22. This field contains the year of students on this instance (YEARSTU) for the year denoted by XX, for example YEARSTU16 contains YEARSTU for 2016-17.

FYOUTYEAR

23. This field indicates which year's data is used to produce the metrics.

Value	Definition
17	A record exists for the instance in 2017-18
16	Otherwise

FYOUTCOMDATE

24. This field contains the start date of the instance (COMDATE) used for the metrics.

Value	Definition
COMDATE17	FYOUTYEAR = 17
COMDATE16	Otherwise

FYOUTCOURSEAIM

25. This field contains the general qualification aim of the course (COURSEAIM) used for the metrics.

Value	Definition
COURSEAIM17	FYOUTYEAR = 17
COURSEAIM16	Otherwise

FYOUTCOURSEID

26. This field contains the course identifier (COURSEID) used for the metrics.

Value	Definition
COURSEID17	FYOUTYEAR = 17
COURSEID16	Otherwise

FYOUTENDDATE

27. This field contains the end date of the instance (ENDDATE) used for the metrics.

Value	Definition
ENDDATE17	FYOUTYEAR = 17
ENDDATE16	Otherwise

FYOUTNOTACT

28. This field contains the not in active study indicator (NOTACT) used for the metrics.

Value	Definition
NOTACT17	FYOUTYEAR = 17
NOTACT16	Otherwise

FYOUTQUAL1-2

29. This field contains the qualification awarded (QUAL) used for the metrics.

Value	Definition
QUAL17_1-2	FYOUTYEAR = 17
QUAL16_1-2	Otherwise

FYOUTRSNEND

30. This field contains the reason for ending instance (RSNEND) used for the metrics.

Value	Definition
RSNEND17	FYOUTYEAR = 17
RSNEND16	Otherwise

FYOUTSLENGTH

31. This field contains the expected length of study (SLENGTH) used for the metrics.

Value	Definition
SLENGTH17	FYOUTYEAR = 17
SLENGTH16	Otherwise

FYOUTUNITLGTH

32. This field contains the unit of length (UNITLGTH) used for the metrics.

Value	Definition
UNITLGTH17	FYOUTYEAR = 17
UNITLGTH16	Otherwise

FYOUTXLEV501

33. This field contains the level of study (XLEV501) used for the metrics.

Value	Definition
XLEV50117	FYOUTYEAR = 17
XLEV50116	Otherwise

FYOUTXMODE

34. This field contains the mode of study (XMODE) used for the metrics.

Value	Definition
XMODE17	FYOUTYEAR = 17
XMODE16	Otherwise

FYOUTYEARPRG

35. This field contains the year of course (YEARPRG) used for the metrics.

Value	Definition
YEARPRG17	FYOUTYEAR = 17
YEARPRG16	Otherwise

FYOUTYEARSTU

36. This field contains the year of student (YEARSTU) used for the metrics

Value	Definition
YEARSTU17	FYOUTYEAR = 17
YEARSTU16	Otherwise

CRSLGTH

37. This field contains the expected length of the course in months. The values are rounded up to the nearest whole month.

Value	Definition
FYOUTSLENGTH *12	FYOUTUNITLGTH = 1
FYOUTSLENGTH	FYOUTUNITLGTH = 2
(FYOUTSLENGTH *12)/52	FYOUTUNITLGTH = 3
1	FYOUTUNITLGTH = 4, 5
BLANK	Otherwise

YEARADJ

38. This field contains the year adjustment to be used in the calculation of the expected end date, to take into account direct entrants.

Value	Definition
FYOUTYEARPRG - FYOUTYEARSTU	FYOUTYEARPRG ≠ 99 and FYOUTYEARPRG > FYOUTYEARSTU
0	Otherwise

FYOUTEXPEND

39. This field contains the expected end date of the instance.

Value	Definition
FYOUTCOMDATE + CRSLGTH (months) – YEARADJ (years)	CRSLGTH ≠ BLANK
BLANK	Otherwise

FYOUTEXPENDSIX

40. This field contains the expected end date of the instance plus six months.

Value	Definition
FYOUTEXPEND + 6 months	FYOUTEXPEND ≠ BLANK
BLANK	Otherwise

EXCL1

41. This field indicates students excluded from the metric population as they are not studying full-time.

Value	Description	Definition
0	Student is studying full-time	FYOUTXMODE = 1, 2
1	Student is not studying full-time	Otherwise

EXCL2

42. This field indicates students excluded from the metric population as they are not study at undergraduate level.

Value	Description	Definition
0	Student is studying at undergraduate level	FYOUTXLEV501 = 3, 4
1	Student is not studying at undergraduate level	Otherwise

EXCL4

43. This field indicates students excluded from the metric population as they are not in the session population in any year considered.

Value	Description	Definition
0	Student is counted in the session population	XSPSES0116 = 1 or XSPSES0117 = 1
1	Student is not counted in the session population	Otherwise

EXCL8

44. This field indicates students excluded from the metric population as they do not have an expected end date.

Value	Description	Definition
1	Student does not have an expected end date	FYOUTEXPEND = BLANK
0	Student has an expected end date	Otherwise

EXCL16

45. This field indicates students excluded from the metric population as their end date is at least one year before their expected end date.

Value	Description	Definition
1	Student has an end date at least one year before their expected end date	FYOUTENDDATE \neq BLANK and FYOUTENDDATE < FYOUTEXPEND – 1 year
0	Otherwise	Otherwise

EXCL32

46. This field indicates students excluded from the metric population as their expected end date does not fall within the period considered.

Value	Description	Definition
1	Expected end date does not fall within the period considered	FYOUTEXPEND < 1 February 2017 or FYOUTEXPEND \geq 1 February 2018
0	Expected end date falls within the period considered	Otherwise

FYOUTEXCL

47. This field indicates whether the student will be included in the metric population. For students excluded from the calculation, FYOUTEXCL contains the sum of all applicable values from the table below. Students included in the calculation have FYOUTEXCL = 0.

Value	Description	Definition
1	Student is not full-time	EXCL1 = 1
2	Student is not studying at undergraduate level	EXCL2 = 1
4	Student is not counted in the session population	EXCL4 = 1
8	Student does not have an expected end date	EXCL8 = 1
16	Student has an end date at least one year before their expected end date	EXCL16 = 1

Value	Description	Definition
32	Expected end date does not fall within the period considered	EXCL32 = 1
0	Otherwise	None of the above

48. The field is computed as $(1 \times \text{EXCL1}) + (2 \times \text{EXCL2}) + (4 \times \text{EXCL4}) + (8 \times \text{EXCL8}) + (16 \times \text{EXCL16}) + (32 \times \text{EXCL32})$. The reasons which contributed to the exclusion can therefore be determined. For example, if $\text{FYOUTEXCL} = 3$, the only possible combination of exclusion criteria that sums to 3 is $\text{EXCL1}=1$ and $\text{EXCL2}=1$: thus the student was excluded on the basis that they were not full-time and they were not studying at undergraduate level.

FYOUTAIMRANK

49. This field indicates the ranking of the qualification aim of the course.

Value	Description	Definition
1	Credits	$\text{FYOUTCOURSEAIM} = \text{E90, L90, L91, M90, M91, H90, H91, I90, I91, J90, C90}$
5	Postgraduate qualifications excluding integrated taught masters	$(\text{FYOUTCOURSEAIM}^* = \text{D, E, L, M and FYOUTCOURSEAIM} \neq \text{M22, M26, M28})$ and not above
4	Qualification at Level 6 and integrated taught masters	$(\text{FYOUTCOURSEAIM}^* = \text{H or FYOUTCOURSEAIM} = \text{M22, M26, M28, I00, I11, I16})$ and not above
3	Qualification at Level 5	$\text{FYOUTCOURSEAIM}^* = \text{I, J}$ and not above
2	Qualification at Level 4	$\text{FYOUTCOURSEAIM}^* = \text{C}$ and not above
0	Otherwise	None of the above

* Only the first character of this field is used.

FYOUTQUALRANK1-2

50. This field indicates the ranking of the qualification achieved.

Value	Description	Definition
1	Credits	$\text{FYOUTQUAL1-2} = \text{E90, L90, L91, M90, M91, H90, H91, I90, I91, J90, C90}$
5	Postgraduate qualifications excluding integrated taught masters	$(\text{FYOUTQUAL1-2}^* = \text{D, E, L, M and FYOUTQUAL1-2} \neq \text{M22, M26, M28})$ and not above
4	Qualification at Level 6 and integrated taught masters	$(\text{FYOUTQUAL1-2}^* = \text{H or FYOUTQUAL1-2} = \text{M22, M26, M28, I00, I11, I16})$ and not above
3	Qualification at Level 5	$\text{FYOUTQUAL1-2}^* = \text{I, J}$ and not above
2	Qualification at Level 4	$\text{FYOUTQUAL1-2}^* = \text{C}$ and not above
0	Otherwise	None of the above

* Only the first character of this field is used.

FYOUTRESULT

51. This field indicates the outcome for the student six months after the expected end date.

Value	Description	Definition
QUALIFIED	Student has qualified with the qualification level they were aiming for or higher	FYOUTENDDATE ≠ BLANK and FYOUTENDDATE ≤ FYOUTEXPENDSIX and (FYOUTQUALRANK1 ≥ FYOUTAIMRANK or FYOUTQUALRANK2 ≥ FYOUTAIMRANK)
RESULTUNK	Student has completed the course but their result is unknown	FYOUTYEAR = 17 and FYOUTENDDATE ≠ BLANK and FYOUTENDDATE ≤ FYOUTEXPENDSIX and FYOUTRSNEND = 98 and not above
LESSER	Student has left with a qualification of a lower level (other than credit) than the one they were aiming for	FYOUTENDDATE ≠ BLANK and FYOUTENDDATE ≤ FYOUTEXPENDSIX and ((FYOUTQUALRANK1 < FYOUTAIMRANK and FYOUTQUALRANK1 > 1) or (FYOUTQUALRANK2 < FYOUTAIMRANK and FYOUTQUALRANK2 > 1)) and not above
NOQUAL	Student has left with no qualification	FYOUTENDDATE ≠ BLANK and FYOUTENDDATE ≤ FYOUTEXPENDSIX and ((FYOUTQUAL1 = BLANK or FYOUTQUALRANK1 = 1) and (FYOUTQUAL2 = BLANK or FYOUTQUALRANK2 = 1)) and not above
INACTIVE	Student is not studying but has not left	FYOUTNOTACT = 1 and not above
STUDYING	Student is still studying	FYOUTYEAR = 17 and (FYOUTENDDATE = BLANK or FYOUTENDDATE > FYOUTEXPENDSIX) and FYOUTNOTACT ≠ 1 and not above
OTHER	Otherwise	None of the above

Re-building the 2017-18 final year outcome metrics using the individualised file

52. The summary figures derived from HESA data shown in the FYOUTCOME17_DCT_AXXXXXXXXX.xlsx workbooks are listed below. For each item we describe how to identify the records in the individualised file FYOUTCOME17_DCT_AXXXXXXXXX_IND.csv that contribute to the figure. In each case we specify the values of the derived fields needed to rebuild the output.

Item in workbook	Derived field selection in individualised file
Students in the final year outcome population	FYOUTEXCL = 0
Students in the population that left with the qualification level aimed for	FYOUTEXCL = 0 and FYOUTRESULT = QUALIFIED
Students in the population that left without the qualification level aimed for	FYOUTEXCL = 0 and FYOUTRESULT = LESSER, NOQUAL
Of which:	
<i>Students in the population that left with a qualification of a lower level than aimed for</i>	<i>FYOUTEXCL = 0 and FYOUTRESULT = LESSER</i>
<i>Students in the population that left without a qualification</i>	<i>FYOUTEXCL = 0 and FYOUTRESULT = NOQUAL</i>
Other	FYOUTEXCL = 0 and FYOUTRESULT = RESULTUNK, INACTIVE, STUDYING, OTHER
Of which:	
<i>Students in the population that completed their course but the result is unknown</i>	<i>FYOUTEXCL = 0 and FYOUTRESULT = RESULTUNK</i>
<i>Students in the population that are not studying but have not left</i>	<i>FYOUTEXCL = 0 and FYOUTRESULT = INACTIVE</i>
<i>Students in the population that are still studying</i>	<i>FYOUTEXCL = 0 and FYOUTRESULT = STUDYING</i>
<i>Students in the population that are unclassified</i>	<i>FYOUTEXCL = 0 and FYOUTRESULT = OTHER</i>



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