

Office for
Students



2021-22 Student data checking tool

Annual Financial Return 2022 higher
education student FTEs data summary
technical document and rebuild instructions

Enquiries to FinanceData@officeforstudents.org.uk

Publication date 18 August 2022

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Summary

1. This document describes the Annual Financial Return 2022 (AFR22) higher education student full-time equivalents (FTEs) data summary files generated by the 2021-22 Student data checking tool, and the algorithms used to generate the data needed to recreate the AFR22 higher education student FTEs (as returned in Table 7 of AFR22) from Student data. Throughout the document, fields taken or derived from the student record are shown in capitals.
2. This document is for providers that had a financial year end of 31 July in the financial years 2021 and 2022. Providers with other year end dates should not use this document.
3. The AFR22 higher education student FTEs data summary files should be used by staff responsible for the completion of the AFR22 or the individualised data returns at higher education providers. This document is intended to help them understand in detail how the Student data can be used to populate the FTEs in Table 7 of the AFR22.
4. The AFR22 higher education student FTEs data summary consists of two files. These are:
 - a. FTEs data summary workbook 'AFR22FTE_DCT_XXXXXXXX.xlsx' where XXXXXXXX is the UK Provider Reference Number (UKPRN) for the provider.
 - b. FTEs data summary individualised file 'AFR22FTE_DCT_XXXXXXXX_IND.csv' where XXXXXXXX is the UK Provider Reference Number (UKPRN) for the provider.

Details of how to use individualised files are given on the Office for Students (OfS) website (www.officeforstudents.org.uk/data-and-analysis/supplying-data/working-with-individualised-files/).

5. These files can be accessed via the Information Reporting Interface Service (IRIS) report which is available on designated data body's (DDB's) data collection site (<https://datacollection.hesa.ac.uk/>). Access details will be sent to the appropriate contacts at providers when the data checking tool is available.
6. This document is aimed at readers with in-depth knowledge of the data. Readers are advised to refer to the Student Record Coding Manual 2021-22 (<https://www.hesa.ac.uk/collection/c21051>).
7. We will document any changes or corrections to the algorithms in this document on the OfS website: www.officeforstudents.org.uk/data-and-analysis/data-checking-tool/2021-22-student-data-checking-tool/ under 'Updates'. If you have any feedback on any of the algorithms used to create this output, please email FinanceData@officeforstudents.org.uk.

Changes

Changes from 2020-21 HESA Student post-collection outputs

8. This section describes any changes to the outputs and algorithms since the equivalent was published for the 2020-21 HESA student post collection outputs (www.officeforstudents.org.uk/data-and-analysis/post-collection-outputs/hesa-student-post-collection-outputs/ under 'Documentation').
9. Any deletions are shown with a ~~strike through~~. Any other changes are shown as **bold and underlined**.

AFRWEEEKS

10. This field has been updated to round up the number of weeks when UNITLGTH = 2 and 4.

Value		Definition
CEILING ((SPLNGTH ÷ 12) × 52) + ((SPLNGTH mod 12) × 4)	The unit of length associated with SPLNGTH is months. Therefore, the value of SPLNGTH is divided by twelve and AFRWEEKS is the sum of the quotient multiplied by 52 and the remainder multiplied by four.	UNITLGTH = 2 and SPLNGTH ≠ BLANK
CEILING (SPLNGTH ÷ 5)	The unit of length associated with SPLNGTH is days, therefore AFRWEEKS is SPLNGTH divided by five.	UNITLGTH = 4 and SPLNGTH ≠ BLANK

AFRMODE

11. This field has been updated to delete values of mode that are no longer relevant to English providers for the Student Record Coding Manuals 2020-21 and 2021-22, and to include writing up modes of study (MODE= 43, 44).

Value	Description	Definition
FTS	Full-time	MODE = 01, 42 , 73, 23, 24, 43 or (MODE = 02, 43 , 25 and AFRELSP = 3, 4, 5, 6, 7, 8, 9, A)
PT	Part-time	MODE = 14, 31, 33 , 34 , 35 , 36 , 38 , 39 , 44 , 74 or (MODE = 02, 43 , 25 and AFRELSP = 1, 2)

AFRPOP21

12. This field has been updated to match the Student session population algorithm <https://www.hesa.ac.uk/collection/c20051/derived/xpses01>.

Field	Definition	Value
AFRPOP21	(ENDDATE > AFRFYE20 or ENDDATE = BLANK) and COMDATE <= AFRFYE21 and HESASOURCE = 2020-21 and TTCID = 0, 1, 2, 5, 9, D, Q and LOCSDY ≠ S and EXCHANGE = N, Y, Z, BLANK and AFRMODE ≠ BLANK and AFRLEVEL ≠ BLANK	1

13. The algorithm AFRENTANT21 algorithm was correct in the HESA 2020-21 post-collection output technical document but was coded incorrectly and missing the condition COMDATE <= AFRFYE21, this along with the algorithm changes above may cause differences when comparing Year 2 data from the 2020-21 HESA Student post-collection AFR21 FTEs data summary workbook with Year 1 data from the 2021-22 Student data checking tool AFR22 FTEs data summary workbook.

Changes in 2021-22

14. Any changes after initial publication will be listed here.

AFR22 higher education student FTEs data summary workbook

15. The AFR22 higher education student FTEs data summary workbook is the Excel workbook AFR22FTE_DCT_XXXXXXXXX.xlsx. This file contains a table of similar structure to Table 7 in the AFR22 workbook, with the financial years ending in 2021 and 2022. This table is populated with FTEs obtained from the Student data.

Table 1: Worksheets in the AFR22 higher education student FTEs data summary workbook

Worksheet	Title
Information	Workbook information
Data	Annual Financial Return 2022 higher education student FTEs data summary

AFR22 higher education student FTEs data summary individualised file

16. When working through this document it is necessary to use the individualised file, AFR22FTE_DCT_XXXXXXXXX_IND.csv. The individualised file contains the values of all fields

used to generate the AFR22 higher education student FTEs data summary workbook AFR22FTE_DCT_XXXXXXXX.xlsx.

17. Fields taken from the Student return or derived as part of the AFR22 higher education student FTEs data summary workbook are shown in capitals using the names given in Tables 2 and 3 respectively. Fields prefixed with 'AFR' are derived, all others are taken directly from the Student returns, as indicated in Table 2.
18. Specific instructions for rebuilding the AFR22 higher education student FTEs data summary workbook from the individualised file are provided in this document.
19. The individualised file contains one record per student instance per reporting year for 2020-21 and 2021-22. For example, a student instance (each unique combination of UKPRN, HUSID and NUMHUS) returned in the 2020-21 and 2021-22 Student returns will have two rows in the individualised file, one for each HESA reporting year.

Student fields used to create AFR22 higher education student FTEs data summary

20. The Student fields used to generate the data in the AFR22 higher education student FTEs data summary are listed in Table 2.

Table 2: Fields used in the AFR22 higher education student FTEs data summary

Entity	Field	Description	Column in individualised file
Course	COURSEAIM	General qualification aim of instance	AF
Course	COURSEID	Course identifier	F
Course	TTCID	Teacher training course	AM
Instance	COMDATE	Start date of instance	AE
Instance	ENDDATE	End date of instance	AG
Instance	EXCHANGE	Identifies whether the student is an exchange student	AH
Instance	LOCSDY	Location of study	AI
Instance	MODE	Mode of study	AJ
Instance	NUMHUS	Student instance identifier	C
Instance	OWNINST	Provider's own instance identifier	E
Instance	SPLENGTH	Expected length of study	AK
Instance	STULOAD	Student instance full-time equivalence (FTE)	AL
Instance	UNITLGTH	Units of length	AN
Institution	UKPRN	UK Provider Reference Number	A
Student	HUSID	HESA unique student identifier	B
Student	OWNSTU	Provider's own identifier for a student	D
HESA derived field	XDOMHM01	Domicile (<u>HESA derived field</u>)	AO

Description of derived fields

21. The derived fields used to generate the AFR22 higher education student FTEs data summary are listed in Table 3.

Table 3: AFR22 higher education student FTEs data summary derived fields

Derived field name	Description	Paragraph	Column in individualised file
AFRDOMICILE	Domicile	24	H
AFRELSP	Expected length of study programme	26	AD
AFRENTRANT21	Students that were entrants in financial year ending 2021	40	Q
AFRENTRANT22	Students that were entrants in financial year ending 2022	40	M
AFRFTE21	Student FTE for financial year ending 2021	41	R
AFRFTE22	Student FTE for financial year ending 2022	41	N
AFRFYE20	Provider's 2020 financial year end date	29	V
AFRFYE21	Provider's 2021 financial year end date	29	O
AFRFYE22	Provider's 2022 financial year end date	29	K
AFRLEVEL	Level of study	28	J
AFRMODE	Mode of study	27	I
AFRPGR19	Students at postgraduate research level in financial year ending 2019	33	AB
AFRPGR20	Students at postgraduate research level in financial year ending 2020	36	Y
AFRPGR21	Students at postgraduate research level in financial year ending 2021	39	U
AFRPGT19	Students at postgraduate taught level in financial year ending 2019	32	AA

Derived field name	Description	Paragraph	Column in individualised file
AFRPGT20	Students at postgraduate taught level in financial year ending 2020	35	X
AFRPGT21	Students at postgraduate taught level in financial year ending 2021	38	T
AFRPOP21	Student instances in Annual Financial Return population for year ending 2021	30	P
AFRPOP22	Student instances in Annual Financial Return population for year ending 2022	30	L
AFRUG19	Students at undergraduate level in financial year ending 2019	31	Z
AFRUG20	Students at undergraduate level in financial year ending 2020	34	W
AFRUG21	Students at undergraduate level in financial year ending 2021	37	S
AFRWEEKS	Number of weeks of course	25	AC
AFRSOURCE	Student collection that the instance was returned in	23	G

Linking between years

22. We have linked 2021-22 HESA data to 2020-21, 2019-20 and 2018-19 Student data using the fields UKPRN and HUSID, for the purpose of deriving AFRETRANT21 and AFRETRANT22.

Recreation algorithms

AFRSOURCE

23. This field contains the reporting period of the Student collection that the instance was returned in. For example, for records returned in the 2021-22 Student collection (C21051), AFRSOURCE = 2021-22.

AFRDOMICILE

24. This field allocates students to a domicile.

Value	Description	Definition
UK	UK-domiciled students	XDOMHM01 = 1, 2, 3, 4
EU	EU-domiciled students	XDOMHM01 = 6
NONEU	Non-EU-domiciled students	Otherwise

AFRWEEEKS

25. This field identifies the number of weeks in a student's course.

Value	Description	Definition
$SLENGTH \times 52$	The unit of length associated with SLENGTH is years, therefore AFRWEEKS is SLENGTH multiplied by 52.	UNITLGTH = 1 and SLENGTH \neq BLANK
$CEILING((SLENGTH \div 12) \times 52)$	The unit of length associated with SLENGTH is months. Therefore, the value of SLENGTH is divided by twelve and AFRWEEKS is the sum of the quotient multiplied by 52.	UNITLGTH = 2 and SLENGTH \neq BLANK
SLENGTH	The unit of length associated with SLENGTH is weeks, therefore AFRWEEKS is equal to SLENGTH.	UNITLGTH = 3 and SLENGTH \neq BLANK
$CEILING(SLENGTH \div 5)$	The unit of length associated with SLENGTH is days, therefore AFRWEEKS is SLENGTH divided by five.	UNITLGTH = 4 and SLENGTH \neq BLANK

Value		Definition
1	The unit of length associated with SPLNGTH is hours, therefore AFRWEEKS is set to one.	UNITLGTH = 5
BLANK	The unit of length associated with SPLNGTH is null or unknown.	Otherwise

AFRELSP

26. This field identifies the expected length of study of programme.

Value	Description	Definition
1	Less than five weeks	AFRWEEKS < 5
2	Greater than or equal to five weeks and less than 24 weeks	AFRWEEKS >= 5 and AFRWEEKS < 24
3	Greater than or equal to 24 weeks and less than or equal to one year	AFRWEEKS >= 24 and AFRWEEKS <= 52
4	Greater than one year and less than or equal to two years	AFRWEEKS > 52 and AFRWEEKS <= 104
5	Greater than two years and less than or equal to three years	AFRWEEKS > 104 and AFRWEEKS <= 156
6	Greater than three years and less than or equal to four years	AFRWEEKS > 156 and AFRWEEKS <= 208
7	Greater than four years and less than or equal to five years	AFRWEEKS > 208 and AFRWEEKS <= 260
8	Greater than five years and less than or equal to six years	AFRWEEKS > 260 and AFRWEEKS <= 312
9	Greater than six years and less than 20 years	AFRWEEKS > 312 and AFRWEEKS < 1040
A	Not known or expected length of study programme is greater or equal to 20 years.	AFRWEEKS >= 1040 or SPLNGTH = BLANK or UNITLGTH = 9, BLANK

AFRMODE

27. This field allocates students to a mode of study.

Value	Description	Definition
FTS	Full-time	MODE = 01, 73, 23, 24, 43 or (MODE = 02, 25 and AFRELSP = 3, 4, 5, 6, 7, 8, 9, A)
PT	Part-time	MODE = 31, 44, 74 or (MODE = 02, 25 and AFRELSP = 1, 2)
BLANK	Otherwise	Otherwise

AFRLEVEL

28. This field allocates students to a level of study.

Value	Description	Definition
UG	Undergraduate	COURSEAIM = M22, M26, M28, H00, H11, H12, H16, H18, H22, H23, H50, I00, I11, I12, I16, H13, H41, H42, H43, H60, H61, H62, H70, H71, H72, H76, H78, H79, H80, H81, H88, H90, H91, H99, I60, I61, I70, I71, I72, I73, I74, I76, I78, I79, I80, I81, I90, I91, I99, J10, J13, J16, J20, J26, J30, J41, J42, J43, J45, J76, J80, J90, J99, C13, C20, C30, C41, C42, C43, C77, C78, C80, C90, C99
PGT	Postgraduate taught (excluding PGCE)	COURSEAIM = E00, E13, E40, E43, E90, M00, M01, M02, M10, M11, M13, M16, M40, M41, M42, M43, M44, M45, M50, M70, M72, M73, M76, M78, M79, M80, M86, M88, M90, M91, M99
PGCE	PGCE	COURSEAIM = M71
PGR	Postgraduate research	COURSEAIM = D00, D90, L00, L80, L90, L91, L99
BLANK	Otherwise	Otherwise

AFRFYE20, AFRFYE21, AFRFYE22

29. These fields contain the provider's year end dates for each financial year. Please email FinanceData@officeforstudents.org.uk if any of these dates are incorrect.

AFRPOP21, AFRPOP22

30. These fields identify the student instances in the AFR population for each financial year.

Field	Definition	Value
AFRPOP21	(ENDDATE > AFRFYE20 or ENDDATE = BLANK) and COMDATE <= AFRFYE21 and AFRSOURCE = 2020-21 and LOCSDY ≠ S and EXCHANGE = N, Y, Z, BLANK and AFRMODE ≠ BLANK and AFRLEVEL ≠ BLANK	1
AFRPOP22	(ENDDATE > AFRFYE21 or ENDDATE = BLANK) and COMDATE <= AFRFYE22 and AFRSOURCE = 2021-22 and LOCSDY ≠ S and EXCHANGE = N, Y, Z, BLANK and AFRMODE ≠ BLANK and AFRLEVEL ≠ BLANK	1

AFRUG19

31. This field indicates how many undergraduate taught years of instance were associated with the UKPRN and HUSID in the financial year ending in 2019 (AFRLEVEL in 2018-19 = UG).

AFRPGT19

32. This field indicates how many postgraduate taught years of instance were associated with the UKPRN and HUSID in the financial year ending in 2019 (AFRLEVEL in 2018-19 = PGT, PGCE).

AFRPGR19

33. This field indicates how many postgraduate research years of instance were associated with the UKPRN and HUSID in the financial year ending in 2019 (AFRLEVEL in 2018-19 = PGR).

AFRUG20

34. This field indicates how many undergraduate taught years of instance were associated with the UKPRN and HUSID in the financial year ending in 2020 (AFRLEVEL in 2019-20 = UG).

AFRPGT20

35. This field indicates how many postgraduate taught years of instance were associated with the UKPRN and HUSID in the financial year ending in 2020 (AFRLEVEL in 2019-20 = PGT, PGCE).

AFRPGR20

36. This field indicates how many postgraduate research years of instance were associated with the UKPRN and HUSID in the financial year ending in 2020 (AFRLEVEL in 2019-20 = PGR).

AFRUG21

37. This field indicates how many undergraduate taught years of instance were associated with the UKPRN and HUSID in the financial year ending in 2021 (AFRLEVEL in 2020-21 = UG).

AFRPGT21

38. This field indicates how many postgraduate taught years of instance were associated with the UKPRN and HUSID in the financial year ending in 2021 (AFRLEVEL in 2020-21 = PGT, PGCE).

AFRPGR21

39. This field indicates how many postgraduate research years of instance were associated with the UKPRN and HUSID in the financial year ending in 2021 (AFRLEVEL in 2020-21 = PGR).

AFRETRANT21, AFRETRANT22

40. These fields identify students that were entrants in each financial year.

Field	Description	Definition	Value
AFRETRANT21	Has not been active at the same broad level at the registering provider in either of the two previous academic years, linked by UKPRN and HUSID	COMDATE > AFRFYE20 and COMDATE <= AFRFYE21 and ((AFRLEVEL = UG and AFRUG20 = 0 and AFRUG19 = 0) or (AFRLEVEL = PGT, PGCE and AFRPGT20 = 0 and AFRPGT19 = 0) or (AFRLEVEL = PGR and AFRPGR20 = 0 and AFRPGR19 = 0))	1
AFRETRANT22	Has not been active at the same broad level at the registering provider in either of the two previous academic years, linked by UKPRN and HUSID	COMDATE > AFRFYE21 and COMDATE <= AFRFYE22 and ((AFRLEVEL = UG and AFRUG21 = 0 and AFRUG20 = 0) or (AFRLEVEL = PGT, PGCE and AFRPGT21 = 0 and AFRPGT20 = 0) or (AFRLEVEL = PGR and AFRPGR21 = 0 and AFRPGR20 = 0))	1

AFRFTE21, AFRFTE22

41. These fields contain the student instance FTE that falls in each financial year.

Field	Definition	Value
AFRFTE21	AFRPOP21 = 1	STULOAD ÷ 100
AFRFTE22	AFRPOP22 = 1	STULOAD ÷ 100

Rebuild instructions

42. The individualised file, AFR22FTE_DCT_XXXXXXXXX_IND.csv, can be used to interrogate the data and our calculation of derived fields by filtering to certain groups of records. Full details of how to access and use individualised files are given on our website (www.officeforstudents.org.uk/data-and-analysis/supplying-data/working-with-individualised-files/).
43. Specific instructions to rebuild the FTE figures shown in the output workbook, AFRFTE22_DCT_XXXXXXXXX.xlsx, are provided here.
44. The following instructions assume the user has the individualised file open in Microsoft Excel.
45. To apply filters to the column headings, highlight the headings. From the 'DATA' tab in the toolbar select 'Filter'.
46. You will need to use the SUBTOTAL function with option 9 to sum the values in the relevant column (AFRFTE22 or AFRFTE21) once the filters have been applied. Using the SUBTOTAL function instead of the SUM function will ensure that you only include those values that have been filtered to.
47. To rebuild the AFR22 higher education student FTEs data summary, apply the following filters:

Item in workbook	Derived field selection in individualised file
Students in AFR population for financial year ending 2021	AFRPOP21 = 1
Students in AFR population for financial year ending 2022	AFRPOP22 = 1
UK-domiciled students	AFRDOMICILE = UK
EU-domiciled students	AFRDOMICILE = EU
Non-EU-domiciled students	AFRDOMICILE = NONEU
Full-time students	AFRMODE = FTS
Part-time students	AFRMODE = PT
Undergraduate students	AFRLEVEL = UG
PGCE students	AFRLEVEL = PGCE
Postgraduate taught (excluding PGCE) students	AFRLEVEL = PGT
Postgraduate research students	AFRLEVEL = PGR
Postgraduate taught students	AFRLEVEL = PGT, PGCE
Entrant students in financial year ending 2021	AFRENTRANT21 = 1

Item in workbook	Derived field selection in individualised file
Entrant students in financial year ending 2022	AFRENTRANT22 = 1
Continuing students in financial year ending 2021	AFRENTRANT21 = 0
Continuing students in financial year ending 2022	AFRENTRANT22 = 0

48. For example, to rebuild the FTE for the financial year ending in 2021 for UK-domiciled full-time undergraduate entrant students (cell C6 in the 'Data' tab of the AFR22 higher education student FTEs data summary workbook), you should apply the following filters: AFRDOMICILE = UK, AFRMODE = FTS, AFRLEVEL = UG, AFRPOP21 = 1 and AFRENTRANT21 = 1. Then use the SUBTOTAL function to sum the values in the AFRFTE21 column.
49. Similarly, to rebuild the FTE for the financial year ending in 2022 for EU-domiciled part-time postgraduate taught continuing students (cell G21 in the 'Data' tab of the AFR22 higher education student FTEs data summary workbook), you should apply the following filters: AFRDOMICILE = EU, AFRMODE = PT, AFRPOP22 = 1, AFRENTRANT22 = 0 and AFRLEVEL = PGT, PGCE. Then use the SUBTOTAL function to sum the values in the AFRFTE22 column.
50. Values in the workbook cells have been rounded to the nearest whole number, as this is how they must be returned in the AFR22 data collection. Therefore, numbers in the data summary workbook may not match exactly, particularly for totals.



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www.nationalarchives.gov.uk/doc/open-government-licence/version/3/