Articulation Methodology Supplement

Introduction

1. This supplement provides information on the definitions and methodology around the articulation figures which measure transition of students from Scotland's colleges to universities and appear in the Report on Widening Access. These figures form part of the work to map learner journey pathways and widen access to Higher Education Institutions (HEIs). It supports the Scottish Funding Council's (SFC) work with colleges and universities on outcome-based planning through Outcome Agreements[1] as well as the Commission on Widening Access (CoWA)'s recommendations on articulation[2] and the recent Articulation Forum Report[3].

2. The published articulation figures reflect the ongoing work carried out within SFC in collaboration with the university sector to ensure the counts accurately capture the varying practices in data collection across HEIs relating to articulation.

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[1] Guidance for Interim Outcome Agreements 2020-21
[2] *A Blueprint for Fairness*, CoWA (2016) (Recommendations 9 and 10)
[3] https://www.universities-scotland.ac.uk/wp-content/uploads/2020/08/Final-Report-of-National-Articulation-Forum-2020-1.pdf

Definitions: Academic Credit versus Articulation

3. All figures refer only to Scottish-domiciled students. They are divided into two groups:

4. **Wider Articulation Measure (WAM):** covers all qualifications at SCQF 7 & 8 transitioning to first degree (HNC/HND/HE Diploma/Degree and Associate Students[4]), including internal movement[5] from UHI and SRUC[6]. Sections, tables and charts concerning this wider group will be clearly marked with the more general term **Wider Articulation Measure**.

5. **Main Articulation Measure (MAM):** a subgroup of the above and is concerned only with HNC and HND qualifications (and excluding internal movement). Sections, tables and charts concerned with this group are marked with the term **Main Articulation Measure**.

6. We consider both groups because the term articulation is defined by SFC's Access and Inclusion Committee's (AIC) (paragraph 8)[7] as "a student gaining entry into second year of a degree with a Higher National Certificate (HNC) gained at college, or into third year with a Higher National Diploma (HND) gained at college." The Main Articulation Measure addresses this definition; however, as broader avenues have developed between the sectors and transition is not explicitly limited to HNCs and HNDs, we now must also consider the Wider Articulation Measure.

7. Widening the discussion to cover both groups affords a more comprehensive observation of learner journeys across the sectors where teaching is partially delivered in college before completion at university. Key to both groups is the central notion of learners not repeating a level of learning and instead moving upwards from their successfully achieved levels.

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[4] The term 'Associate Student' describes the situation where a college and an HEI share responsibility for a student, with the HEI acting as the awarding body for a course that is delivered partly by a college and partly by a HEI. Classes in the earlier years may be delivered at the college while the later years may be delivered at the HEI. See also http://www.sfc.ac.uk/web/FILES/Statistics/Associated_Students_HESQ.pdf.
[5] Internal movement is where a student studying and HNC/HND in an integrated college moves on to a degree course within the umbrella university.
[6] Note: HE-level study is collected by HESA and not FES for UHI and SRUC.
[7] http://www.sfc.ac.uk/access-inclusion/articulation/articulation.aspx

Calculating Levels of Academic Credit

8.   Levels of academic credit are calculated based on the level of the college qualification (either SCQF 7 [including HNC] or SCQF 8 [including HND]) and the year of the university programme into which the college student moves. The following tripartite classification of prior learning is the agreed terminology:

- Advanced Standing (AS) - full academic credit for prior study.
- Advanced Progression (AP) - partial credit for prior study.
- Progression (P) - no credit for prior learning.

9.   Examining these in terms of SCQF levels, the classifications are applied as follows:

Table 1: Academic credit levels by entered university year of programme

	Year 1	Year 2	Year 3
SCQF 7 (inc. HNC)	Progression	Advanced Standing	-
SCQF 8 (inc. HND)	Progression	Advanced Progression	Advanced Standing

10.   Advanced Standing is not concerned with absolute placement of students in a given study year but instead identifies where *maximum possible credit for prior learning* has occurred and where there is no duplication of learning level – in other words, where a learner journey is continuously upwards. Advanced Progression is where an SCQF 8/HND student enters year two of university and repeats study at the same SCQF level they have just completed.[8]

11.   There are some instances in the data where an individual may articulate to an HEI and then drop out and subsequently start again at another HEI with academic credit. In such cases the appropriate level is counted for each HEI.

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[8] Note: if a student fails the second year of an SCQF 8/HND and moves to year 2 of study at a university, this would be deemed Advanced Standing since no successful study is being repeated, i.e. they are classified based on the last successful level completed: SCQF7/HNC.

Measuring Academic Credit Levels

12. Measuring articulation levels across academic years employs the following parameters of measurement to give a consistent means of measurement across university academic sessions. Students who are considered countable for university-year comparison must meet the following three criteria:

- They must be Scottish-domiciled,
- They must be on articulation pathways[9] and
- They must articulate within three-years of qualifying at college.

13. Articulation pathways are those pathways between college subjects and university subjects where the data indicates academic credit has been awarded on at least one learner journey. These pathway combinations are then marked across the data on the basis that where it exists for one learner it has the potential to exist for all moving between that subject combination. This limits countable data by removing those from measurement who studied an HN in one subject, e.g. *Business Studies*, and then used the qualification as an entry qualification to university but to a different subject area, e.g. *Computing*. This example would be seen as a non-pathway and would be excluded from year-comparison counting.

14. Maintaining a shorter period in the transition to university study also has the benefit of highlighting active subject pathways in contrast to the more individual routes found as the gap increases[10].

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[9] See Data Definitions section for more detail.

[10] Although it should be noted there are legitimate journeys that sit outwith the three-year window. These are excluded for consistency of measurement but still fall within the aims of lifelong learning in general.

Methodology, Data Definitions and Quality Information

Revised Development Methodology

1. As stated, articulation figures are concerned with establishing where HNC/HND students and the wider SCQF 7 & 8 students go to university and the year of study into which they arrive. This includes college students on degrees, HE Diplomas and any other students flagged as Associate Students. In addition, Further Education Statistics (FES) analogue records were generated from the Higher Education Statistics Authority (HESA) data for those on HNC/HND in UHI and SRUC and these were also tracked internally in those institutions.

2. Records are prepared for matching for each qualification type. The process selects the best and most appropriate record for each individual in Scotland's FES data, in the UK's HESA data (from any year of student) and from the Scottish Qualification Authority (SQA) database.

3. The FES record is first matched with the SQA record to pick up certification and make any modifications to the level of qualification of the student as necessary, e.g. a student who is coded as HND in FES but has a qualification level of HNC in SQA would become an HNC-level student for HESA matching purposes.

4. The combined FES/SQA records are then matched to the HESA records and a series of checks is carried out to identify true matches that relate to the same student.

5. Compilation brings all matches together in the dataset before establishing which matched record is the most valid for each individual student. For the majority, this is the first time they articulate to an institution, but where an individual is found articulating to two institutions in consecutive years, both records of articulation are kept, since monitoring "false starts" is also of interest to better manage future articulation pathways.

6. Once a single record for the appropriate articulation year is established for each student the data is checked to ensure there are no unexpected multiple occurrences of the HESA Student Identifier or the Scottish Candidate number so that analyses of articulation by student can be undertaken.

7. Academic credit assignment is based on the highest confirmed SCQF qualification and the year of programme for the first year of degree study at university. So for example, if the system finds a successful HND student whose first year of study at university is into year two of a programme, they would be assigned Advanced Progression and the relevant flagging assigned for counting.

Quality Information: Quality Assurance of the revised NAD

8. Extensive Quality Assurance of our articulation analysis has been ongoing to obtain an accurate and comprehensive set of records on articulation. Our thanks go to those in the universities this summer who spent time contributing to this work during the pandemic, notably Queen Margaret University, Heriot-Watt University, The Open University and University of the Highlands and Islands.

9. The work carried out included:

    a. Auditing the original code internally for sense and accuracy.

    b. Data checking all revisions and additions which were then sent to universities to check accuracy of academic credit assignment and to establish if there were any missing students. The universities returned datasets with queries regarding levels as well as indications of students they felt should be included/excluded but were not.

    c. Academic credit levels that were queried were re-assessed and underlying coding changed if necessary, while the "missing" students queried by institutions were cross-referenced against:

        i. FES and SQA datasets.

        ii. Through all enrolments in FES back to 2008-09.

10. In doing this, we established comprehensively where every queried student sat within our matches and established every possible match between HESA data for the most current four years and FES for the last decade. The process allowed us to establish the accuracy and efficiency of the system since we can state that inclusion in the figures published here reflect only the numbers which meet the requirements of correctly-coded data entries at both university and college.

11. We will continue to work closely with the sectors to ensure improved data accuracy to make these results comprehensive in reflecting all academic credit for programmes going forward. We will also continue to refine the matching process to further improve accuracy.

Limitations on Accuracy and Other Considerations

12. Although every effort has been made to derive a complete picture of all relevant movement between Scotland's colleges and universities, there remain some omissions from counts because the data simply isn't robust enough for inclusion.

13. There are also some notable issues in the articulation results worth mentioning and which add limitations to the articulation figures. The main issue comes from the fact that students may be offered Advanced Standing or Advanced Progression by a university but may choose to start at year one (Progression). As there is no field in the HESA data to show that academic credit was offered and refused, potential Advanced Standing and Advanced Progression may be slightly higher than the reported figures.

14. Another consideration is that we do not know from the HESA data whether the highest qualification on entry is the qualification used for entry. This can make excluding inappropriate matches more problematic than it could be.

15. There is also no indication in the data to flag where things other than the college qualification are in play for academic credit purposes, such as relevant work experience or other training beyond the scope of the FES data.

> **Example**: an individual has worked for eight years and enters university with Advanced Standing into year three. Their qualification on entry shows they have an HND as their highest qualification on entry but their work experience may actually be the reason for the articulation level.

16. These issues with the qualification on entry and possible work experience/training influencing articulation have been central to the decision to use a three-year trailing period for measurement.

17. All of the above factors should be considered when evaluating the articulation figures as we work towards solutions to resolve these issues.

Data Definitions

Academic Credit: The process whereby college qualifications can be seen as equivalent to a year of university study allowing a student to avoid repeating levels of study.

Scottish-Domiciled: Any student recorded in the HESA Student return as being permanently domiciled in Scotland prior to starting their course.

Articulation Pathways: Articulation pathways are data-generated relationships between college HE Subject groupings and university subjects. Our articulation system looks for examples where a combination has yielded an instance of AS or AP and then flags all instances of this combination across the database. This allows accurate counting of those where potential articulation could occur driven by data showing prior learning accreditation, and allows us to identify students where the learner has changed direction in studies on the non-pathways.

Trailing period: The amount of time between completion of the college course and the first year of university study.

Measurable figures: Articulation is included in the analyses if it meets the following criteria:

- Scottish-domiciled student.
- On an articulation Pathway.
- Three-year maximum between HN completion and attending university.