

**Scotland's Census 2021
Education Topic Event Summary**

March 2018

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1. Main Points

Highest level of qualification is a widely used census variable. In the [Topic Consultation Report](#) (PDF) National Records of Scotland (NRS) proposed to continue to collect information about qualifications held in Scotland's Census 2021.

Some concerns were noted about the quality of qualifications data from the 2011 Census and NRS proposed to review the detail of the information to be gathered in 2021 to ensure that it meets user need in terms of outputs and quality.

NRS held a stakeholder event to gather information on user need for the detail captured on qualifications.

Stakeholders at this event considered all levels of highest qualification attainment to be important to meet their user need.

There was no clear agreement on collapsing levels; different data users had different detailed requirements from census data.

No stakeholders present at this event had used the census deprivation indicators, and those who indicated that they do use deprivation classifications expressed a preference for the use of the Scottish Index of Multiple Deprivation (SIMD) for this purpose.

Three alternative sets of qualifications questions were shared with stakeholders at the Topic Event. None of these alternatives were found to meet all user need. There was also some concern about respondent interpretation of some of the alternative questions.

2. Introduction

2.1 Topic Consultation

National Records of Scotland (NRS) invited views on [Scotland's Census 2021 – Topic Consultation](#) (PDF) between 8 October 2015 and 15 January 2016.

The consultation document presented the initial views from NRS on the topics under consideration for collection in the census in 2021, with the aim of encouraging discussion and to help build strong cases to justify the inclusion of topics.

The consultation was a key step towards understanding what information users will need from the census in 2021. The focus of the consultation was on information required at topic-level, not the detail of the questions that should be asked on the questionnaire.

In order to develop the question set that will be recommended for inclusion in the census questionnaire, NRS is working with stakeholders and undertaking research, question testing and consideration of acceptable burden. The final decision on the content of Scotland's Census 2021 questionnaire will ultimately be made by the Scottish Parliament. NRS will make recommendations on content to parliament, likely in late 2018.

As in previous years, there will be separate censuses conducted by the Office for National Statistics (ONS) in England & Wales and the Northern Ireland Statistics and Research Agency (NISRA) in Northern Ireland. The three census offices will work together to develop a set of questions that, wherever possible and necessary, deliver harmonised outputs across the UK.

ONS and NISRA published responses to the consultations on the content for the 2021 Censuses in England & Wales¹ and Northern Ireland² in 2016.

2.2 Topic Consultation Follow-up Event

In the Topic Consultation, NRS outlined the next steps for each topic or sub-topic where question changes or new questions may be required. For educational attainment, NRS agreed to review the detail of the information to be collected to ensure that it meets user need in terms of outputs and quality.

We recognised that it was vital to ensure that our follow-up discussions included a wide range of stakeholders. Respondents to the Topic Consultation who indicated that they were happy to be contacted by NRS about Education or Labour Market topics were invited to attend a Topic Consultation follow-up event on 19 December

Footnotes

¹ 'The 2021 Census – Assessment of initial user requirements on content for England and Wales: response to consultation' [2021 Census topic consultation - Office for National Statistics](#)

² 'Assessment of the responses received – Response to Consultation' [2021 Census Topic consultation – Northern Ireland Statistics and Research Agency](#)

2017, and to participate in an online survey about the use of education data from the census and other sources.

The event was also widely promoted through the [Scotland's Census newsletter](#) which has a distribution list of around 2,000 contacts.

In order to capture the requirements of users who could not attend the event, and to capture further detailed requirements from those who did, NRS will be continuing to engage with stakeholders about Education and Labour Market census questions and outputs as we plan for Scotland's Census 2021.

The materials from the [Education and Labour Market Topic Event](#) held on 19 December 2017 are available on the Scotland's Census website.

This report summarises the discussion with stakeholders from the Education Topic Event and the responses gathered through pre-event education data survey.

The report summarising further discussion with stakeholders about the Labour Market Topic can be found on [Education and Labour Market Topic Event](#) page on the Scotland's Census website.

3. Education

3.1 Introduction

Highest level of qualification is a widely used census variable. In the [Topic Consultation Report](#) (PDF) NRS proposed to continue to collect information about qualifications held in Scotland's Census 2021. Some concerns were noted about the quality of qualifications data from the 2011 Census and NRS proposed to review the detail of the information to be gathered in 2021 to ensure that it meets user need in terms of outputs and quality. In addition, comments were made that the classification would need to include the new National Qualifications, and that the review should consider the classification of older qualifications and the inclusion of apprenticeships.

Highest level of qualification is a derived variable. The highest level of qualification is derived from the Qualifications Held Question that asks "Which of these qualifications do you have?". This question collects information about all qualifications rather than highest qualification only. Questions developed to try and collect highest qualification directly, without asking for any other qualifications have previously been shown to be unsuccessful at collecting highest qualification with adequate reliability or validity, because individuals are unaware of the qualifications hierarchy or focus only on qualifications relevant to their work or that they completed most recently.^{3 4}

³ GSS Harmonised Principles - Harmonised Concepts and Questions for Social Data Sources – [Educational Attainment](#) (PDF)

⁴ Department for Education Statistics, [Improving the collection of qualifications data](#) (PDF)

Data quality issues with the 2011 Qualifications Held Question are related to the number of response options and the volume of text in this question. In 2011, the item non-response rate for this question was 6.5 per cent, which is higher than for the majority of other census questions. In addition, the 2011 census overestimated the population aged 16 to 64 with no qualifications, compared to the [Labour Force Survey](#) (LFS), which is the official source of qualifications data in the UK. For more information about qualifications captured in the LFS, see [Annex A](#). In the 2011, 18 per cent of 16 to 64 year olds were found to not have any qualifications, compared with approximately 12 per cent in the LFS.

There were 10 response options (plus 'no qualifications') in the Qualifications Held Question in 2011 covering professional and vocational qualifications, and a range of academic qualifications. This question is shown in Figure 1.

Figure 1. Qualifications Held Question in Scotland's Census 2011

23 Which of these qualifications do you have?

◆ Tick all that apply.

- O Grade, Standard Grade, Access 3 Cluster, Intermediate 1 or 2, GCSE, CSE, Senior Certificate or equivalent
- SCE Higher Grade, Higher, Advanced Higher, CSYS, A Level, AS Level, Advanced Senior Certificate or equivalent
- GSVQ Foundation or Intermediate, SVQ level 1 or 2, SCOTVEC Module, City and Guilds Craft or equivalent
- GSVQ Advanced, SVQ level 3, ONC, OND, SCOTVEC National Diploma, City and Guilds Advanced Craft or equivalent
- HNC, HND, SVQ level 4 or equivalent
- Degree, Postgraduate qualifications, Masters, PhD, SVQ level 5 or equivalent
- Professional qualifications (for example, teaching, nursing, accountancy)
- Other school qualifications not already mentioned (including foreign qualifications)
- Other post-school but pre-Higher Education qualifications not already mentioned (including foreign qualifications)
- Other Higher Education qualifications not already mentioned (including foreign qualifications)
- No qualifications

For the purpose of statistical outputs, the response options are combined into four categories for highest level of qualification, plus a category for no qualifications. These categories with their corresponding question response options are shown in Table 1.

Table 1. Highest level of qualification

No qualifications	<input type="checkbox"/> No qualifications
Level 1	<input type="checkbox"/> O Grade, Standard Grade, Access 3 Cluster, Intermediate 1 or 2, GCSE, CSE, Senior Certificate or equivalent; <input type="checkbox"/> GSVQ Foundation or Intermediate, SVQ level 1 or 2, SCOTVEC Module, City and Guilds Craft or equivalent; <input type="checkbox"/> Other school qualifications not already mentioned (including foreign qualifications)
Level 2	<input type="checkbox"/> SCE Higher Grade, Higher, Advanced Higher, CSYS, A Level, AS Level, Advanced Senior Certificate or equivalent; <input type="checkbox"/> GSVQ Advanced, SVQ level 3, ONC, OND, SCOTVEC National Diploma, City and Guilds Advanced Craft or equivalent
Level 3	<input type="checkbox"/> HNC, HND, SVQ level 4 or equivalent; <input type="checkbox"/> Other post-school but pre-Higher Education qualifications not already mentioned (including foreign qualifications)
Level 4 and above	<input type="checkbox"/> Degree, Postgraduate qualifications, Masters, PhD, SVQ level 5 or equivalent; <input type="checkbox"/> Professional qualifications (for example, teaching, nursing, accountancy); <input type="checkbox"/> Other Higher Education qualifications not already mentioned (including foreign qualifications)

The following sections summarise the main stakeholders requirements and comments about Qualifications Held from the Education Topic Event and pre-event education data survey.

3.2 Highest Level of Education

Stakeholders at this event considered all levels of highest qualification attainment to be important to meet their user need. There was no clear agreement on collapsing levels; different data users had different detailed requirements from census data.

In the Topic Consultation, respondents were asked for information about their requirements for census data on educational attainment. The Topic Consultation did not ask about the detail of data required from the Qualifications Held Question.

At the Topic Event, stakeholders were presented with the 2011 census education levels and asked to provide feedback about which levels were most important for their work and whether they additionally needed information about apprenticeships.

No qualifications was typically considered to be the most important level to capture, to provide the distinction between no qualifications and some qualifications. It was also noted that Scottish Index of Multiple Deprivation (SIMD) require census data on the number of working age people with no qualifications in the calculation of their deprivation indicators.

Both no qualifications and Level 1 were considered important for service provision and to inform policy strategies aimed at getting vulnerable populations into education and/or employment. It was noted by some stakeholders that there is little distinction made between having no qualifications and Level 1 qualifications for this purpose. In contrast, as noted above, some stakeholders felt that the distinction between no qualifications and some qualifications was important, and others were interested in Level 1 specifically because this is the mandatory education cut-off point.

All levels were considered to be important for area profiling, with particular importance given to Level 2. The geographical spread of Level 3 versus Level 4 and above was considered to be important in determining regional disparities relating to higher education. Local authority representatives present at the event were interested in the separation of Levels 2, 3 and 4. Level 3 was considered to be particularly important for identifying groups more likely to go college than university.

There was no clear agreement on collapsing levels; different data users had different detailed requirements from census data. While some suggested that there is little distinction given to the difference between no qualifications and Level 1, some specified that the distinction between no qualifications and some qualifications was very important. Some stakeholders suggested grouping Level 2 and 3 together, others suggested grouping Level 1 and Level 2 together, and others that Level 3 and Level 4 and above could be grouped together. This reflects the range of user need identified for the education question in the census.

A small number of stakeholders present at this event expressed a requirement for data on apprenticeships. Those that did require this data from the census suggested

that although Skills Development Scotland publish apprenticeship data, the benefit to capturing this in the census would be cross tabulation with data on ethnic group and disability. It was suggested that a question in the Labour Market section may be more appropriate. There was an appreciation for how useful this data would be in determining how apprenticeships had contributed to job progression compared to other educational qualifications. This is an area for further investigation.

In addition, a number of stakeholders agreed that continuity with 2011 was less important to them than capturing an accurate picture of the population in 2021.

3.3 Census Deprivation Indicator

Stakeholders were asked if they used the census deprivation indicators, about the level set for the education indicator in 2011 and whether this level is appropriate in 2021. No stakeholders present at this event had used this data, and those who indicated that they do use deprivation classifications expressed a preference for the use of the Scottish Index of Multiple Deprivation (SIMD) for this purpose.

The 2011 Census household deprivation classification was designed to be similar to the 2009 [SIMD](#) classification, which is the Scottish Government's official tool to identify areas of multiple deprivation in Scotland. However, it is not possible to create a comparable classification using census data alone.

SIMD was updated in 2016, and some changes were made to the education indicators. In particular, the indicator 'pupil performance on Scottish Qualifications Authority (SQA) at stage 4' was replaced with 'attainment on school leavers'. The new 2016 indicator considers the highest qualification a pupil leaves school with, whereas the 2009 and 2012 indicators looked at the average SQA score at stage 4 (Standard Grade or equivalent). The new 2016 indicator is not comparable with the previous indicator used, and therefore less comparable with the 2011 Census indicator.

At the Topic Event, stakeholders were asked if they used the census deprivation indicators, about the level set for the education indicator in 2011 and whether this level is appropriate in 2021. The 2011 Census deprivation classification is included below.

The 2011 Census Household Deprivation Classification

The dimensions of deprivation used to classify households are indicators based on four selected household characteristics. A household is deprived in a dimension if they meet one or more of the following conditions:

- employment: where any member of a household, who is not a full-time student, is either unemployed or long-term sick,
- education: no person in the household has at least Level 2 education (see [Table 1](#)), and no person aged 16 to 18 is a full-time student,

- health and disability: any person in the household has general health that is 'bad' or 'very bad' or has a long term health problem, and
- housing: the household's accommodation is either overcrowded, with an occupancy rating -1 or less, or is in a shared dwelling, or has no central heating.

A household is classified as being deprived in none, or one to four of these dimensions in any combination.

High level figures on 2011 Census household deprivation were published as part of the [Release 2D Statistical Bulletin](#), and census household deprivation was used in analysis by the Scottish Learning Disabilities Observatory, published in the [2011 Census Analytical Reports](#). However, census household deprivation is not a widely used census variable, and was not included or requested in many tables outside of these reports.

In the 2011 Census, the most common dimensions for deprivation of households were education and health, either as the only dimension of deprivation (14 per cent and 11 per cent respectively of all households) or in combination with each other (12 per cent of all households).

Stakeholders at the Topic Event and respondents to the survey were typically not users of the census household deprivation classification. Stakeholders who indicated that they do use deprivation classifications expressed a preference for the use of SIMD for this purpose. However, some users expressed an interest in using census deprivation indicators, and many noted that educational attainment itself is widely used as a proxy measure for deprivation.

3.4 Alternative Qualifications Questions

Three alternative sets of qualifications questions were shared with stakeholders at the Topic Event to gather feedback on these designs and the changes that these would result in for the highest level of education output. However, none of these alternatives were found to meet all user need. There was also some concern about respondent interpretation of some of the alternative questions.

In the Topic Consultation it was noted that the classification would need to include the new National Qualifications and that NRS should consider the classification of older qualifications and the inclusion of apprenticeships.

A 2011-style question including these new categories, is shown in [Figure 2](#). This 2011-style Qualifications Held Question takes up a large amount of space on a limited size paper questionnaire and has a high respondent burden relative to the use of this data from the census (compared to many other census questions such as ethnic group, religion and country of birth). In an attempt to make this question simpler than the 2011 question, the order of the response options has been slightly

altered. However, to improve data quality, reduce space and respondent burden a simpler question or series of questions would be required.

Three alternative sets of qualifications questions were shared with stakeholders at the Topic Event to gather feedback on these designs and the changes that these would result in for the highest level of education output. These alternative questions and the comparable levels to the 2011 highest level of qualification that these questions could produce are shown in [Figures 3, 4 and 5](#).

Figure 2. 2011-style question

28 Which of these qualifications do you have?

◆ Tick all that apply

- O Grade, Standard Grade, National 4 or 5, Access 3 Cluster, National 3, Intermediate 1 or 2, GCSE, CSE, Senior Certificate or equivalent
- SCE Higher Grade, Higher, Advanced Higher, CSYS, A Level, AS Level, Advanced Senior Certificate or equivalent
- Apprenticeship (including trade, advanced, foundation and modern)
- GSVQ Foundation or intermediate, SVQ level 1 or 2, SCOTVEC Module, City and Guilds Craft or equivalent
- GSVQ Advanced, SVQ level 3, ONC, OND, SCOTVEC National Diploma, City and Guilds Advanced Craft or equivalent
- HNC, HND, SVQ level 4 or equivalent
- Other school qualifications not already mentioned (including foreign qualifications)
- Other post-school but pre-Higher Education qualifications not already mentioned (including foreign qualifications)
- Degree, Postgraduate qualifications, Masters, PhD, SVQ level 5 or equivalent
- Professional qualifications (for example teaching, nursing, accountancy)
- Other Higher Education qualifications not already mentioned (including foreign qualifications)
- No qualifications

Figure 3. Alternative Questions A

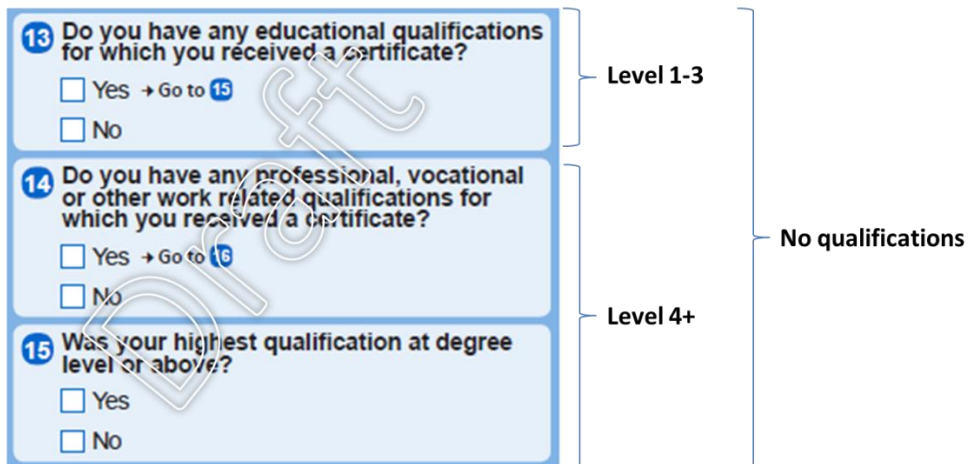


Figure 4. Alternative Questions B

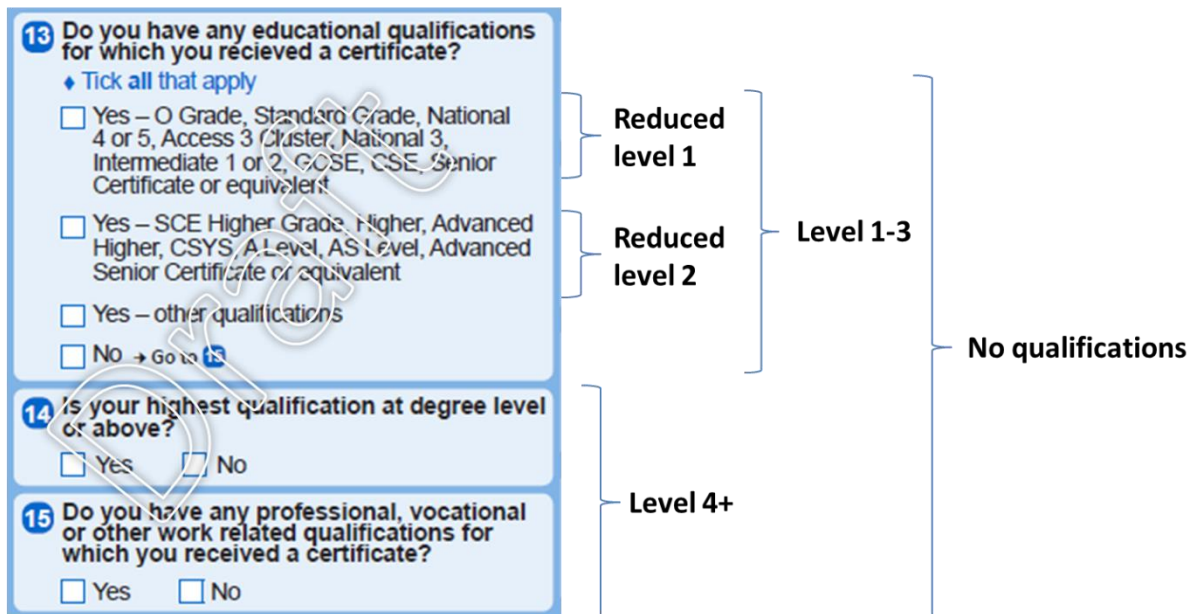


Figure 5. Alternative Questions C

13 Do you have any educational qualifications for which you received a certificate?
 ♦ Tick all that apply

Yes – O Grade, Standard Grade, National 4 or 5, Access 3 (Cluster, National 3, Intermediate 1 or 2, CCSE, CSE, Senior Certificate or equivalent

Yes – GSVQ Foundation or Intermediate, SVQ level 1 or 2, SCOTVEC Module, City or Guilds Craft or equivalent

Yes – other qualifications

No → Go to 19

14 Is your highest qualification at degree level or above?

Yes No

15 Do you have any professional, vocational or other work related qualifications for which you received a certificate?

Yes No

Level 1 (includes Q13 Yes options 1-3)

Level 2-3 (includes Q13 Yes option 4)

Level 4+ (includes Q14 Yes, Q15 Yes)

No qualifications (includes Q13 No, Q14 No, Q15 No)

Alternative question set A, shown in [Figure 3](#), are the recommended UK harmonised educational attainment questions provided in the [Government Statistical Service \(GSS\) Harmonisation Handbook](#). This question set was specifically designed to capture three education attainment categories which cognitive testing showed could be collected with adequate reliability and validity for broad classificatory purposes:

- Degree, or degree equivalent and above;
- Other qualifications;
- No qualifications.

These levels are roughly equivalent to obtaining census education Levels 1 to 3 combined, Level 4 and above, and no qualifications.

Alternative question sets B and C, shown in [Figure 4](#) and [Figure 5](#), are based on the GSS harmonised questions, and capture information about more levels of education.

In alternative question set B, shown in [Figure 4](#), reduced forms of Level 1 and Level 2 could be obtained, as well as a combined Level 1 to 3, Level 4 and above, and no qualifications. In alternative question set C, shown in [Figure 5](#), Level 1 can be obtained alongside a combined Level 2 to 3, Level 4 and above and no qualifications.

Alternative question set A was disliked by all stakeholders at this event. This question set was thought to be too brief and not to collect the necessary information to meet user need.

Of the alternative question sets, set C was the most preferred. A number of stakeholders commented that it seemed strange to ask about O Grade, Standard Grades and equivalent but not to ask about Highers, and suggested that this question be amended to include the tick box for Higher, Advanced Higher and

equivalents from question set B. However, none of these alternatives met all user need.

The wording of the third question in the alternative set was typically found to be confusing. This question asks "Do you have any professional, vocational or other work related qualifications for which you received a certificate?". There was concern about how individuals who regularly update a certificate might answer (for example, chartered accountants) and that individuals would answer this with a wide range of qualification types (for example Duke of Edinburgh award, First Aid certificate).

There was also some concern about respondent interpretation of "Is your highest qualification at degree level or above", and that some people may include their HNC (Higher National Certificates) or HND (Higher National Diplomas) here because these qualifications are not included elsewhere. It was suggested that additional guidance be included or that an additional question asking about the details of the degree should be included.

Comments on these alternative question sets were captured on post-it notes at the Topic Event. These comments are collated in Table 2.

Table 2. Stakeholder comments on alternative question sets

Question set	Comments
A	<ul style="list-style-type: none"> • <i>"Don't skip 14 [question 13 has routing past 14 in this version]"</i> • <i>"Schools offer more vocational qualifications, where would GSVQ go?"</i> • <i>"Would want HNC, HND, etc. [to be captured in Q14]"</i> • <i>[Question 14] "Would someone record a swimming certificate or other minimal certified qualification (i.e. basic literacy)"</i> • <i>[Question 15] "Fine except for degree, could add in brackets what should be included (i.e. where should HNC, HND be?) would not want them in 15"</i> • <i>"Where are apprenticeships? Want to have data on those who have finished apprenticeships – compare to jobs/outcomes in census snapshot"</i> • <i>"This would help get no quals right"</i> • <i>"No quals – all required currently. If revised, would need 1-2, not 3"</i>
B	<ul style="list-style-type: none"> • <i>"Scottish census question must mention 'Highers' because that's what most people will have"</i> • <i>"If the census can't capture everything, capture info that's not captured elsewhere. On the whole, focus on school attainments as that is key information"</i> • <i>"Census and other small area data sources should work together to capture everything we had before. More with less duplication. If census focuses on school education, the labour market question. LFS can focus on other topics"</i>

	<ul style="list-style-type: none"> • <i>“Vocational and professional qualifications are captured or implied in NS-SEC and this question on the census is confusing. E.g. hairdresser, electrician, accountant – all ‘vocational’”</i> • <i>“prefer B”</i> • [drawn on – suggestion that National 3 come before Access 3 Cluster] • [drawn on - suggest rewording ‘other qualifications’ to ‘other school level qualifications (including international)’] • [drawn on – add ‘(including international)’ to q14 and q15] • [two ticks on ‘no qualifications’ – most important level] • [two ticks on deprivation indicator being set on reduced level] • [mock up apprenticeship question] <p>Apprenticeships Past [tick - needed] Current (Maybe?) No [tick - needed]</p>
C	<ul style="list-style-type: none"> • <i>“Better than nothing [option]”</i> • [Question 15] <i>“needs to be reworded to provide for 4+”</i> • [Question 15] <i>“Level 4 would include online courses, e.g. coding courses. Level 4 too broad”</i> • <i>“Question 15 needs revised to specify a recognised course”</i> • <i>“Used for looking at trends – use multiple sources”</i> • <i>“Level 4 is most important (“sensitive”) for trend monitoring – need level 4 to be consistent to 2011 definitions. E.g. impact of increase in Government policy/student grants etc. can have a big impact”</i> • <i>“prefer C”</i> • <i>“Knowing about Highers separately important as asked about people without Highers. So if school quals asked would want to separate.”</i>

Alternative suggestions included:

- improved routing online to guide respondents through or past the qualifications held question;
- ordering the question by highest level of qualification to obtain better quality data on highest level of qualification;
- moving “Other school qualifications” from Level 1 to Level 2 (because this is likely to include qualifications that are the equivalent to Level 2, for example, foreign baccalaureates),
- including “baccalaureate” in the list for Level 2 school qualifications;

- that asking about conceptual levels of education rather than providing a very long list of examples may make the question easier to answer and not significantly impact data quality compared to having a long list of examples;
- capturing data about life stage rather than highest qualification, for example, whether people stayed in education after the mandatory age.

4. Next Steps

NRS are continuing to engage with stakeholders in planning for Scotland's Census 2021. NRS will be updating users on progress as this process continues.

More information and details about upcoming events can be found on the [Scotland's Census website](#), by subscribing to the [Scotland's Census newsletter](#) and following us on Twitter [@NatRecordsScot](#).

Annex A

Qualifications in the Labour Force Survey (LFS)

The LFS is the largest household survey in the UK, and provides estimates of educational attainment for persons aged 16 to 69 at local authority level for Scotland. The LFS runs quarterly, and the first household interview is face-to-face. The LFS has substantive interest in qualifications and training, and captures detailed information about all qualifications held and in the process of being attained using a series of questions about foreign qualifications, UK-gained qualifications, present study, apprenticeships, training done in the last 4 and 13 weeks, on/off job training, site of training, training fees, time spent training and learning activities in the last three months. Included in these series of questions are questions about how/where the qualification was obtained (whether from school or home schooling or from college or university, for example), type of qualification (by how/where, for example types of school qualification are captured following the question about whether the individual holds school qualifications, and so on), subject area/title/awarding body, and number of level 1 and 2 qualifications (for example, A Levels, Advanced Highers and Highers). It is not possible to ask for such detailed information on a single topic in the self-completion 10-yearly population census.