Office for National Statistics

ONS Census Transformation Programme

The 2021 Census

Assessment of initial user requirements on content for England and Wales

Travel topic report

May 2016

Contents

1. Introduction

In June 2015 the Office for National Statistics (ONS) published the public consultation document 'The 2021 Census initial view on content for England and Wales'[1]. This discussed the initial views of ONS regarding the potential inclusion of current (2011) and additional topics in the 2021 Census. The public consultation was open from 4 June 2015 to 27 August 2015 and aimed to promote discussion and encourage the development of strong cases for topics users wanted to be included in the 2021 Census. The focus was on information required from the 2021 Census, not the detailed questions that could be asked on the questionnaire.

ONS received 1,095 responses to the consultation; 279 of these were from organisations and 816 were from individuals. Of all consultation respondents 291 answered at least one question, or discussed collection of data, on the 'Travel' topic.

There are three sub-topics within the 'Travel' topic:

- Method of transport to place of work
- Address of place of work
- Address of place of study

Based on the evidence given by users and topic experts, sub-topics were evaluated using the criteria detailed in the consultation document using a standardised method. The criteria are listed in table 1 below. The criteria largely reflect those used in the 2011 Census topic consultation and have undergone expert review within ONS and via the Census Advisory Groups for use in the 2021 Census topic consultation. More detail on the scoring methodology is available in section 2 of the document 'The 2021 Census - Assessment of initial user requirements on content for England & Wales: Response to consultation'[2].

1 https://www.ons.gov.uk/census/censustransformationprogramme/consultations/the2021censusinitialviewoncontentforenglandandwales

2 https://www.ons.gov.uk/file?uri=/census/censustransformationprogramme/consultations/2021censustopicconsultation/assessmentofinitialuserrequirementsoncontentforenglandandwalesresponsetoconsultation.pdf

Table 1 Evaluation criteria

1. User requirement	2. Other consideration
• Purpose • Small geographies or populations • Alternative sources • Multivariate analysis • Comparability beyond England and Wales • Continuity with previous censuses	• Data quality • Public acceptability • Respondent burden • Financial concerns • Questionnaire mode
	3. Operational requirement • Maximising coverage or population bases • Coding of derived variables and adjustment for non-response • Routing and validation

This report provides ONS's updated view based on our evaluation of user responses against these evaluation criteria.

2. Background

Address of place of work has been collected in the census since 1901 and transport to place of work since 1971, providing addresses of work locations and method of transport (vehicle type). These data are most often analysed with those on 'Usual Residence Address', to understand commuter flows, which are among the most requested and analysed census outputs.

Prior to the 2011 Census respondents from central government, local government and a variety of other data users identified a need for information on address of place of study. Due to space constraints on the questionnaire this information could only be collected by combining it with the questions on workplace address and travel to work, as was done in the 2011 Censuses in Scotland and Northern Ireland. This sub-topic was not included in the census for England and Wales in 2011 for three main reasons:

- the user needs for the sub-topic were not as strong as for others
- concerns were expressed about the impact on the accuracy of information on transport to place of work if both sub-topics were collected using the same question
- the School Census was identified as a suitable alternative data source

Although the School Census no longer collects this information, the need for continuity with previous censuses for 'transport to place of work' data remains. This led to ONS's initial view on the sub-topics, as published in the consultation document 'The 2021 Census: Initial view on content for England and Wales' being as shown in table 2 below.

Table 2 Initial view of ONS

Sub-topic detail	Initial view	Comment
Method of transport to place of work	Collect	This sub-topic is widely used across central and local government for planning and monitoring transport policy
Address of place of work	Collect	This sub-topic is widely used across central and local government for planning and monitoring transport policy
Address of place of study	Do not collect	This sub-topic is collected in Scotland and Northern Ireland, but has historically had lower demand in England and Wales

3. Summary of consultation responses

Table 3 presents the number of responses by type of respondent and organisational sector. The organisations that responded to this topic are listed by sector in Annex A.

Table 3 Travel - number of responses by type of respondent

Type of respondent	Total responses	
	N	% total responses
Individual	**157**	**54**
Organisation (all sectors)	**134**	**46**
Sector		% organisation responses
- Government department/public body	11	8
- Local authority	85	63
- Health organisation	2	1
- Housing	2	1
- Academic/research	6	4
- Charity and voluntary	12	9
- Commercial	7	5
- Genealogist/family historian	2	1
- Other	7	5
Total responses	**291**	**100**

Note: Percentages might not add to 100% due to rounding

Note: An organisation may have submitted more than one response

The quotes below are used to illustrate how respondents use information from the census about travel. These provide additional context to the evaluation.

Respondents gave examples of using the sub-topics to support large transport projects:

> **Department for Transport (DfT):** *"Location of work and mode of travel to work are key variables used with other Census data in transport models maintained by DfT and others in the transport sector. Work related travel is a major factor in transport demand, although by no means the only one, and therefore this information is crucial to calibrating such models. Other recent ad-hoc uses of such data include work to inform the Northern Transport Strategy, and disaggregating employment information in the aviation sector."*

> **David Simmonds Consultancy Ltd.**: *"We are a company which specialises in Land Use Transport Interaction Modelling. The models we have built are for local and national governments in England, Scotland and Wales. We make use of a wide range of Census data: for all geographical levels, the samples of anonymised records, and migration and journey to work data. The work that we do essentially helps inform the cost / benefits for transport infrastructure planning. This includes schemes such as HS2 and CrossRail2, as well as infrastructure projects funded through City Deals. The amount of money spent on these projects ranges from millions through to billions of £s."*

These data are also widely used for service planning and delivery and wider research purposes. Three main uses of travel data, especially cited by local authorities, were identified: transport planning and monitoring, the planning of housing and related infrastructure (sometimes known as town and country planning), and labour market/economic planning.

> **Tower Hamlets Council:** *"The data are particularly valuable in a borough like Tower Hamlets, which includes Canary Wharf, one of London's major employment centres, with a substantive in-commuting population. The figures are widely used across the Council, particularly in the areas of transport planning, economic development and strategic planning. The data underpin the evidence required for the Council's Transport Planning Strategy, the Local Plan and the Local Economic Assessment."*

> **Caerphilly County Borough Council:** *"The topic is used to understand commuting in and out of our area for employment purposes. Geographically we are very close to both Cardiff and Newport and experience high levels of daily commuting to these cities and other surrounding main employment sites. We also have a smaller level of individuals commuting into the area on a daily basis as there are some large employers locally (the local authority itself, Ysbyty Ystrad Fawr, large employment sites etc.) It is important that we understand this picture in order to plan services effectively, and to ensure that we have adequate housing available within the borough and an efficient transport infrastructure."*

> **Oxfordshire County Council:** *"The 2011 Census Travel to Work data, when cross-referenced with the 2001 data, provides valuable evidence about the changes of local employment and land use, and consequences of house-building. In this way the data has provided a snapshot assessment of the impact of past housing and transport policy, including District Local Plans and Local Transport Plans. The data also been analysed to identify the extent to which local housing and jobs market are co-terminus which is evidence that informs the Strategic Economic Plan."*

Respondents also told us about how travel data is needed in combination to analyse travel patterns that feed into transport planning.

> **Department for Transport (DfT):** *"Census questions on travel to work only cover one type of travel (commuting accounts for less than one third of personal travel mileage, even when combined with other business travel) and therefore do not provide an alternative source on either travel demand or social impacts associated with access to a car."*

> **Knowsley Metropolitan Borough Council:** *"Method of travel to place of work, and address of place of work cannot be looked at separately in transport planning perspective as the two variables need to be considered together when looking at people's journey to work."*

> **The Royal Geographical Society with the Institute of British Geographers (IBG):** *"The greatest proportion of travel to work and education is over small geographical distances. The recording of small area geographies is essential in order to permit analysis of the full travel pattern and understand the detailed relationship with the transportation network for research and planning."*

4. Evaluation

The following sections show the scores allocated to each sub-topic by individual criterion based on the evidence given by users. The criteria largely reflect those used in 2011, but have undergone expert review within ONS and via the Census Advisory Groups. The document 'The 2021 Census - Assessment of initial user requirements on content for England and Wales: Response to consultation'[3] gives details on the scoring methodology including:

- 'user requirements criteria', including a description of relative weights, are described in section 2.1 of the document. Note that, in the following tables, the overall score is weighted and is not the sum of the scores for individual criteria

- 'other considerations' are described in section 2.2 of the document. These will predominantly be used in conjunction with the user requirement score to steer the development of the census questionnaire and the production of administrative data research outputs

- 'operational requirements' are described in section 2.3, of the document. ONS has operational uses for some of the data collected in the census, of which the most important is maximising coverage of the 2021 Census. Each subtopic is categorised as being of maximum, moderate or minimum importance in relation to operational requirements.

4.1 User requirements – method of transport to place of work

Table 4 User requirement score by criterion – method of transport to place of work

Criterion	Score	Evidence
Weighted Overall Score	**82.5**	**High user need**
Purpose	9	Central government respondents gave evidence of data use for economic and service planning, policy development and monitoring, as well as for other research purposes. The Department for Communities and Local Government (DCLG) told us that: *"The Census is an indispensable source of information on the relationship between place of residence and place of work; the flows and means of transport between the two; and the relative disparities between night-time and day-time populations at the local level – a key consideration in any analysis of the conditions that impact on local economic growth."* They also told us that:

[3] https://www.ons.gov.uk/file?uri=/census/censustransformationprogramme/consultations/2021censustopicconsultation/assessmentofinitialuserrequirementsoncontentforenglandandwalesresponsetoconsultation.pdf

		"Lack of comprehensive, detailed, and sufficiently granular information on 'transport to work' and 'location of work' would hinder the Department's ability to assess the impact of these factors on local economic growth, and consequentially its wider responsibilities for Infrastructure Planning and Development Control." Local authorities also provided evidence of use of method of travel to work data to support resource allocation, transport planning, economic planning and housing planning. Birmingham City Council said: *"It is one of a very limited few datasets that provide granular detail on travel habits across the whole city. As such it is one of the datasets that is used as part of our resources allocations – the most significant example being our Integrated Transport Block programme (£5m). The data is also used to provide baseline information on bids – such as the recent Cycle city ambitions grant... The impact on policy development is that it forms a significant part of the evidence base, allowing us to make more evidence based decisions... In terms of research, we have used it extensively, for example to analyse travel patterns, distance travelled by mode…"*
Small geographies or populations	9	Respondents gave evidence of a need for these data at small geographical levels for a wide range of uses linked to transport strategies, planning and evaluation of services. The Department for Transport (DfT) said: *"Used to model and predict demand in transport models - this is used to inform decisions about major infrastructure projects at national and local level. Data have been used at Super Output Area level and for workplace zones. The evaluation of transport schemes (e.g. building a bus station, upgrading a road or railway, developing a new urban transport system) requires data on the demographics or local or affected communities, and their travel needs and habits."* East Riding of Yorkshire Council said: *"Method of transport for travel to work: This allows us to establish the modal split for work journeys at a range of geographical levels. The information is crucial to the development of individual settlement transport strategies which are focused on reducing carbon and encouraging economic activity through support to alternatives to the car for shorter journeys."*

Alternative sources	6	Users cited a range of sources that partially met their needs for this sub-topic, although none of them are likely to fully meet needs by 2021. Alternative sources frequently referred to included DfT surveys, TfL (Transport for London) surveys, BRES (Business Register and Employment Survey) and a range of local and national travel surveys. Issues were identified with the alternative sources such as lack of information about flows and small geographies, prohibitive cost of carrying out own surveys, inaccessibility of some alternative sources and small sample sizes. Lancashire County Council said: *"We use the Business Register and Employment Survey, Sport England survey on walking and cycling, bus use, rail station and light rail use data, traffic counts and vehicle numbers as standalone datasets, but not in combination with the census data. These all provide valuable data but do not tell us about commuting patterns within and in and out of the county in the way the census does."* Knowsley Metropolitan Borough Council said that: *"There is no available source of information for any of the above categories (Method of travel to work, Address of place of work) …There is no alternative source to obtain this information in an accurate way. It could theoretically be collected through the company travel planning process, but this would rely on all companies having a travel plan. If this were to be done by the council there would be a very significant cost. To ensure that we continue to best meet the needs of the people of our borough we need to be able to identify and deliver transport schemes that help them make key journeys. Without the commuting data we would not be able to do that."* Hertfordshire County Council stated: *"The travel data is an important part of our transport strategy planning and monitoring as it is so comprehensive in terms of method of travel to work and travel to work origin/destination data. Our alternative County Transport Survey is only a sample survey and thus has limited use."*
Multivariate analysis	9	There was evidence presented of the use of method of travel to work data with a variety of other census sub-topics. West Sussex County Council stated: *'We use travel to work data alongside other Census data on car ownership levels to provide a robust picture of travel*

		behaviour throughout the county. This aids in transport policy development, and in focusing transport infrastructure investment. For example, we have used a comparison of travel to work statistics for resident as opposed to workplace populations to frame the design of transport behaviour change initiatives and infrastructure investment in and between towns across West Sussex. We have also linked Census information on travel to work patterns to labour market information to increase understanding of the employment characteristics of individual towns and to support economic growth initiatives." East Riding of Yorkshire Council told us: *"For example, combining information on travel choice with data on demographic structure, car ownership, employment and health allows us to identify areas, or groups within areas, where there may be a greater need for community transport or pedestrian/cycle facilities."* Knowsley Metropolitan Borough Council stated: *"There is an obvious link between transport and the Housing topic of car/van ownership as this is a significant factor on how people choose to travel. There are links to the labour market questions, particularly as people employed in certain sectors may be more likely to travel in certain ways (e.g. walk, cycle to lower paid employment). There are links to the ethnicity, religion, language and health questions when considering the impact of transport schemes on equalities groups."*
Continuity with previous censuses	9	Users gave evidence that they had compared 2011 Census method of travel to work data with previous censuses to explore and inform economic and transport planning. East Riding of Yorkshire Council told us that: *"Travel to work choices have a significant impact on carbon emissions, congestion, economic performance and health. Assessing change over time allows us to develop policy which is responsive and appropriate to reported travel mode choice."* London Borough of Hackney stated: *"Comparisons of change over time in terms of travel modes are used to make decisions regarding local policy and to lobby for funding and investment for sub-regional infrastructure. Data is also used for evaluation purposes, for example, the borough's promotion of cycling and delivery of cycling infrastructure correlates with a huge increase in cycling in the borough, indicating success in this area."*

		Greater London Authority said: *"Evaluating the changes in magnitudes, locations and characteristics of commuters into (and out of London) over the last 20 years contributes to the Economic evidence base for the London Plan."*
Weighted Overall Score	**82.5**	**High user need**

4.2 Other considerations - method of transport to place of work

Table 5 ONS assessment of impact by criterion - method of transport to place of work

Criterion	Operational impact	Evidence
Impact on data quality	Low	The response rate for this question was 96.8 per cent and the agreement rate between the 2011 Census and the Census Quality Survey (CQS) was 85.5 per cent. Many of the differences between the Census and the CQS were where a response had been provided on behalf of someone else or had been imputed. Differences may be a result of people who use multiple modes of transport on their journey and individual living arrangements.
Impact on public acceptability	Low	Asking for information on this sub-topic was considered to be publicly acceptable.
Impact on respondent burden	Low	For most respondents this is a straightforward question to answer, but previous question testing indicated that for a small proportion it was less clear, for example for people whose journey to work varies from day to day.
Impact on financial concerns	Low	The response to this sub-topic did not require manual coding or complex processing.
Impact on questionnaire mode	Low	This question displayed well online and on the paper questionnaire.

4.3 Operational requirements - method of transport to place of work

Minimum operational requirement

There is no census operational requirement to collect data on this topic.

4.4 User requirements – address of place of work

Table 6 User requirement score by criterion – address of place of work

Criterion	Score	Evidence
Weighted Overall Score	**81.5**	**High user need**
Purpose	9	The majority of respondents to this sub-topic used this data with the method of travel to work. Central Government told us about their use of the data for economic and service planning and policy development and monitoring. The Department for Communities and Local Government (DCLG) said: *"The Census is an indispensable source of information on the relationship between place of residence and place of work; the flows and means of transport between the two; and the relative disparities between night-time and day-time populations at the local level – a key consideration in any analysis of the conditions that impact on local economic growth… Information on this topic is particularly important for DCLG which is responsible for implementing the Government's policies on Devolution, Decentralisation, and Localism and for spreading the benefits of greater economic growth and regeneration more widely across the nation."* Local government gave evidence of use of address of place of work data. Staffordshire County Council Connectivity Strategy told us that: *"…Integrated transport block amounts to approximately £3.5m annually plus money we have won through competitive bidding which is an additional £1m approximately this year. Specific use of the Census data: Transport models; to supplement locally collected observations to develop a matrix of trips for the base year; development control purposes; to provide a distribution of existing trips in areas that are not covered by one of our traffic models to be applied to the trips expected from a new development; to estimate levels of use from infrastructure investment particularly to pedestrians and cyclists whose movements are more complex and harder to survey; to supplement a survey sample where it was not feasible to survey the population.* *The impact of using Census data – deliver targeted measures, production of transport strategies that target initiatives in areas of need, winning money through competitive bidding…"*

		Surrey County Council told us of uses of workplace populations: *"Travel data is used for transport planning and policy development, such as sustainable transport policies. Data on workplace population is used for economic policy development. It has also been used for planning initiatives such as car clubs."*
Small geographies or populations	9	Users provided evidence of need for these data at small geographical levels and in particular their use of workplace zone area data. The Department for Transport (*DfT)* told us: *"Transport is inherently geographical so data are often needed down to small geographical scales. For example, DfT's main national transport models, an integral part of the policy making process, typically use ward or Middle Super Output Area (MSOA) level Census data as inputs. However, the appraisal of proposals for particular local transport schemes needs lower level Census data including data at workplace zone geography. Transport schemes represent both an 'intervention' and an 'allocation of resource', on a large scale. One more detailed aspect of scheme appraisal is the assessment of their social and distributional impact, which will often require Census data down to Output Area (OA) level - without good small area data such assessments might fall short of the standards required by the Green Book."* CACI Ltd said they use data for workplace zones and that: *"Small areas are essential for retail planning relating to place of work, since worker catchments of shopping centres are generally compact."* The Royal Borough of Kingston upon Thames told us: *"The 'address of workplace' data is vital at smaller geographies as it allows us to map the flow and characteristics of the workday population into specific Lower Super Output Areas (LSOAs) and therefore highlights flows into retail centres and businesses. This not only highlights areas of workday population density, but also shows where areas may need to be developed or expanded to deal with the increased/declining business use. For example, retail planning is built on figures derived from the Census."* There was evidence of using workplace zones to provide work related travel information at a local level.

		The Royal Geographical Society with the Institute of British Geographers (IBG) told us that: *"There has been a very positive response from the geographical community to the creation of 2011 Workplace Zones: The report of the 2015 Government Statistical Service Geography User Forum notes: 'Workplace Zones are one of the best outputs from the Census and excellent for local economic analysis'."*
Alternative sources	6	Respondents gave examples of a range of sources that partially meet needs for this sub-topic. For example local and national travel surveys, particularly the Annual Population survey (APS). Issues were identified with the alternative sources such as lack of information about flows and small geographies, prohibitive cost of carrying out own surveys, inaccessibility of some alternative sources and small sample sizes. Tower Hamlets Council said: *"As far as we are aware, the Annual Population Survey (APS) is the only data source that can provide inter-censal estimates of commuting patterns... it does not provide the level of detail, nor the reliability, that the Census provides, and that we require. On the APS, the size of the confidence intervals means we cannot disaggregate the data sufficiently to analyse employment patterns in any detail (either geographically or for small population groups). Specifically, the Census is (currently) the only source that allows us to map detailed commuting flows by area, and to link these data with information about residents and travel modes."* Bournemouth Borough Council told us how other surveys do not fully meet their needs: *"Travel to work surveys, local traffic data, national traffic data, Hospital Episode Statistics (HES) (accident data), STATS19 (road accident/injury statistics). Most only indicate mode or volume not origin and destinations which is critical in developing appropriate transport interventions"* West Sussex County Council told us: *"The cost associated with large scale travel survey samples means that this data can never compare to the level of spatial detail provided by the Census. The Census also enables valuable robust comparison of travel behaviour between local authorities and between small geographic areas."*

Multivariate analysis	9	Evidence was given showing a need to undertake multivariate analysis using data on address of place of work. The majority of respondents told us that they use address of place of work data together with method of travel to work data. Additionally they use other census data for workplace zones which rely on address of workplace information in their creation. Multivariate analysis was used to look at commuter profiles, consider accessibility to employment and inform housing and employment investment. The Department for Communities and Local Government (DCLG) said: *"The Department's responsibility for fostering 'Local Growth' needs to be undertaken in the context of a whole range of contributory demographic and socio-economic factors, each of which will have a bearing on the potential for greater economic growth in each area."* South Norfolk District Council told us: *"The Council is seeking to link commuting patterns and the related job availability with its economic development agenda. This links primarily to demographics, labour supply and migration. By making such links in our policies and strategies, the Council would be able to identify job type patterns and commuting patterns."* Welsh Government said: *"Travel to work journeys differ systematically for men and women, NS-SEC, by occupation. So we need to cross classify both distance travelled and mode of travel used by the full range of socio-economic characteristics. \\These comparisons are important in looking at the evolution of TTWAs [Travel to Work Areas] over time."* Hertfordshire County Council told us about their use of census data: *"the travel data is an important part of our transport strategy planning and monitoring."* and stated: *"We use origin destination data to create commuting profiles for local areas, including demographic and employment characteristics for resident and workplace populations."*
Comparability beyond England and Wales	5	Users gave evidence of some need for UK comparability for travel data. However, respondents mostly gave examples of using address of place of work data across regional or sub-regional areas.

		Lancashire County Council told us: *"Our Lancashire Local Enterprise Partnership was very keen for us to publish travel-related census statistics as soon as possible. A recent piece of work considers closer joint working between the county council and Lancashire's 12 districts and two unitary authorities. The commuter flow results are extremely useful for highlighting the economic inter-dependencies between various authorities and supports bids for joint working."* Tower Hamlets Council said: *"We regularly benchmark ourselves against other local authority areas, both in London, and across England and Wales (as opposed to the UK). These data are used to contextualise and inform our policy priorities and direction. Given the varied patterns of commuting flows across London and the wider South East, having nationwide data on travel and employment is crucial."*
Continuity with previous censuses	9	Respondents told us that they used address of place of work data from previous censuses for measuring growth. Tower Hamlets Council told us: *"Tower Hamlets is one of the fastest growing boroughs in the country (in terms of both people and jobs). Census trend data enable us to explore the nature of that change in some depth, by mapping changes in employment and travel patterns in the borough over time. This type of research helps inform how effective past policies have been, and informs future policy development and priorities."* Research service provider New Economy told us: *"We are particularly interested in the workplace flows data and method of travel. This is used to assess the growth or decline of forms of travel and the impacts of investment in public travel. For example the Metrolink tram system has grown significantly and the Census is useful at working out the scale of growth of patronage. The travel to work data is also useful at assessing areas that might have limited accessibility to employment opportunities."* UK Data Service, and Administrative Data Service said: *"UKDS provides the WICID (Web-based Interface to Census Interaction Data) interface to ONS census interaction*

		datasets, which has enabled over 10,000 downloads of travel flow data. The small area double-geography datasets relating to travel to work are key to the ability to analyse daily travel patterns and demarcate travel to work areas, widely used in labour market research and policy applications…. *There has been a positive response to the creation of 2011 workplace zones and the increased workplace population tables afforded by this alternative aggregation and we anticipate ongoing demand."*
Weighted Overall Score	**81.5**	**High user need**

4.5 Other considerations – address of place of work

Table 7 ONS assessment of impact by criterion – address of place of work

Criterion	Operational impact	Evidence
Impact on data quality	Medium	The agreement rate between the 2011 Census and the Census Quality Survey (CQS) was 82.2 per cent for workplace address and the response rate for the postcode for the address was 87.5 per cent As with other address questions, differences between the census and the CQS may be due to errors in scanning census responses, and respondents giving incorrect details.
Impact on public acceptability	Low	Asking for information on this sub-topic was considered to be publicly acceptable.
Impact on respondent burden	Medium	Respondent burden may be high for people who may not know the full address of their workplace. The question is also subjective for people with no fixed place of work. There was a high demand for online help.
Impact on financial concerns	High	All address based variables currently incur additional coding and processing costs. Manual coding costs for address of place of work (as in the 2011 Census) would further increase the cost.
Impact on questionnaire mode	Low	This question displayed well online and on the paper questionnaire.

4.6 Operational requirements – address of place of work

Moderate operational requirement

Address of place of work is used in key population bases (to derive the workplace and workday output population bases) and to derive distance travelled to work and the origin-destination/ workplace outputs. Address of place of work data were also used for the first time in the 2011 Census to derive Workplace Zones[4] for England and Wales.

4.7 User requirements – address of place of study

Table 8 ONS assessment of impact by criterion – address of place of study

Criterion	Score	Evidence
Weighted Overall Score	**59**	**Low user need**
Purpose	7	Some local government and commercial respondents gave evidence of how they would use address of place of study data. London Borough of Hackney explained the impact that not having address of place of study data has on their organisation: *"Hackney has a large student population and their travel patterns likely make a significant impact on travel demand. Curtailed ability to plan for, allocate resources to, and lobby for/provide infrastructure to meet travel demand. Reduced ability to influence modal shifts to more sustainable travel. Lack of evidence to feed into future Travel Strategy / Local Implementation Plan."* First UK Bus told us: *"We work closely with Local Authorities in order to provide school transport services whilst also driving down costs. With the 'free market' for secondary schools this has meant the catchment areas for good schools has widened substantially over the last decade. If we can align commercial bus services with the flow demand for school children then Local Authorities can potentially stop operating dedicated school services or paying for taxis, and require the children to use public bus services instead at lower cost."*

[4] http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/guide-method/geography/beginner-s-guide/index.html

Small Geographies or Populations	9	Users told us that address of place of study data is needed at small geography level. First UK Bus said: *"If we also had 'travel to study' flow information (at output area level) then that would be invaluable for planning school, college and university services."* Manchester City Council stated: *"Address of place of study: Transport for Greater Manchester (TfGM) could use this data to allow better understanding of the impact that the population in education has on transport and travel movement around local areas. For areas where the higher education sectors serve large numbers of students it would allow for more effective reviews of transport provision serving higher education sites. It would assist in understanding the general patterns of student accommodation and in relation to electoral registration."* The Royal Geographical Society with the Institute of British Geographers (IBG) explained: *"The greatest proportion of travel to work and education is over small geographical distances. The recording of small area geographies is essential in order to permit analysis of the full travel pattern and understand the detailed relationship with the transportation network for research and planning…."*.
Alternative Sources	6	There was some evidence provided of alternative sources for address of place of study in England and Wales. The Higher Education Funding Council for England (HEFCE) told us: *"Place of study information is available from the school census, but also from HESA (Higher Education Statistics Agency) and ILR (Individualised Learner Records) data for higher education and further education, in England. Similar data sets are collected in other UK countries."* An academic, David Owen, confirmed these sources: *"With the raising of the school leaving age and higher educational participation, it is more important to identify travel-to-education in order to understand and plan for urban travel patterns. However, travel to learn data is available from the ILR for FE (further education) students, the School Census and HESA data."*

		First UK Bus said they do not have a source for this information: *"We currently don't have this information so we have to assume which school/college/university full-time student residents travel to. However, we know that especially for university students there tend to be certain areas where students from certain universities or campuses live - understanding this is key to understanding what bus services will best serve their needs."*
Multivariate Analysis	4	There was limited evidence of need for analysis of address of place of study data in conjunction with other census sub-topics such as age and gender. Respondents mainly discussed using data for address of place of study with method of travel to place of study, which has been collected in Scotland and Northern Ireland but not collected in England and Wales. First UK Bus told us that: *"Propensity for Bus travel varies significantly with age and gender as well as income/economic activity (particularly student status)… In addition, household car ownership is a key driver for propensity for bus travel."*
Comparability beyond England and Wales	5	Users gave evidence of a need for UK comparability in data on transport patterns although there was limited evidence for address of place of study. The UK Data Service and Administrative Data Service told us: *"There is also a present inconsistency between the use of travel to work (only) in England and Wales and work/education in Scotland and Northern Ireland, which is an obstacle to UK-wide analysis. We agree that the use of the combined question currently employed in Scotland and Northern Ireland is problematic and does not generate the most reliable data for analysis but travel to education makes is a major driver of congestion and high-quality data are needed."* An academic, Professor John Stillwell, said: *"It would be very useful to extend analysis of commuting to place of study to rest of the UK so I strongly support collection of the address of place of study sub-topic in England and Wales because of the importance of this type of commuting and its impact on transport infrastructure and services."*
Continuity with previous censuses	0	Since information on address of place of study has not been collected on the census no comparisons would be possible were a question included in the 2021 Census.
Weighted Overall Score	**59**	**Low user need**

4.8 Other considerations – address of place of study

Table 9 ONS assessment of impact by criterion – address of place of study

Criterion	Operational impact	Evidence
Impact on data quality	High	Data quality issues may be raised, for example working students may not be clear about which address to include and so many working students could be lost from the travel to work data[5].A separate question to the address of place of work question may mitigate this concern, but would require more space and not be comparable with questions in the Scotland and Northern Ireland Censuses. The 2011 England and Wales CQS (Census Quality Survey) demonstrated that other address variables had quality issues in 2011 – with some respondents not knowing their address of place of work for example, or writing in their home address.
Impact on public acceptability	Low	This sub-topic was not been asked in the 2011 Census in England and Wales but the combined question on 'Address of place of work or study' was considered to be publicly acceptable when asked in the 2011 Censuses in Scotland and Northern Ireland.
Impact on respondent burden	Medium	When the combined question on 'Address of place of work or study' sub-topic was asked in Scotland and Northern Ireland there was some burden on respondents where people both work and study, or study in more than one place. Similarly to address of place of work, people may not know the exact address of place of study.
Impact on financial concerns	Medium	All address based variables currently incur additional coding and processing costs. However, the impact is likely to be less than for workplace due to there being fewer respondents answering this question than for address of workplace.
Impact on questionnaire mode	Low	The 'Address of place of work' in the 2011 Census in England and Wales question and the and combined questions of 'Address of place of work or study' in the 2011 Censuses in Scotland and Northern Ireland both displayed well online and on paper.

4.9 Operational requirements – address of place of study

This question has not been asked in any previous England and Wales censuses and we do not anticipate any operational requirement to collect this information from the census.

[5] See section 4.8 of the 'Final recommended questions 2011 - Labour market' : http://www.ons.gov.uk/census/2011census/consultationsusersandlocalpartners/2011censusclosedconsultations/consultationon2011censusresponses

5. Updated view

The following tables give the updated views of ONS at the sub-topic level and the justification for these.

Table 10 Updated view

Sub-topic detail	Initial view	Updated view	Justification
Method of transport to place of work	Collect	Collect	There is a high level of user need for this sub-topic. Local and central government use the data to support transport planning through transport models, and policy development and monitoring of housing and transport policy. Concerns surrounding operational impact are low, and there is minimal operational requirement.
Address of place of work	Collect	Collect	Local and central government use the data to support transport planning through transport models, and policy development and monitoring of housing and transport policy. The data are essential for deriving workday/workplace populations and in the production of origin-destination workplace outputs. There were some concerns around data quality and respondent burden, and there was a high financial cost relating to processing and coding addresses. However, these concerns do not outweigh a strong user need.
Address of place of study	Do not collect	Do not collect	There was limited evidence specifically related to address of place of study, and the user need was expressed in the context of a greater understanding of transport patterns more generally. There is strong evidence of the importance of continuity with previous censuses for the travel to work data. Continuity would be affected by the collection of address of place of study in a combined question. Furthermore, introducing a combined question is expected to bring additional respondent burden, coding costs, and issues around data quality to a question where concerns around these already exist. ONS has assessed that the user need was not sufficient to include travel to place of study ahead of other topics.

6. Equality implications of ONS's updated view

The Equality Act 2010 and associated public sector equality duty require public bodies to work towards eliminating discrimination and promoting equality of opportunity with regard to nine protected characteristics: age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation. These requirements are reinforced by secondary legislation in both England and Wales[6] as well as by the Equality Objectives published recently by the Welsh Government which seek to address the key equality challenges faced in Wales and to support progress towards the well-being goals in the Well-being of Future Generations (Wales) Act 2015.

The proposals made for the 2021 Census content will consider identified 'User requirements' for data alongside other factors such as 'Other considerations' and 'Operational requirements' specified in our evaluation criteria. In addition, it will be important to take account of the impact of any decisions that we may make on equality. Impacts can be:

- positive - actively promote equality of opportunity for one or more groups, or improve equal opportunities/relations between groups
- adverse or negative - cause disadvantage or exclusion (any such impact must be justified, eliminated, minimised or counter-balanced by other measures)
- neutral - have no notable consequences for any group

Travel is not classified as a protected characteristic by the Equalities Act 2010. There is limited evidence for links between travel data and the protected characteristics. For example analysis of workplace populations, based on address of place of work data, have shown distinct age and country of birth profiles for specific areas. Respondents sometimes take account of protected characteristics when working with census travel data. For example:

London Borough of Hackney: ***"****Small population groups are identified to better understand the transport patterns and model preferences of specific groups, including by equality groups (age, gender, ethnicity), those who travel longer distances, etc."*

The next steps for this topic, discussed below, take into account the identified equality implications. As research and stakeholder engagement continues, if further equality implications emerge, these will be considered and mitigated where necessary.

[6] *The Equality Act 2010 (Specific Duties) Regulations 2011 and The Equality Act 2010 (Statutory Duties) (Wales) Regulations 2011.*

7. Next steps

For the 2021 Census, ONS does not intend to change the questions on the travel topic. However, there is scope to review question guidance, and to consider improvements possible via online collection, to improve data quality or reduce the burden placed on respondents. This will take into consideration that there will need to be a paper questionnaire too.

These activities will be sufficiently progressed to provide a clear proposal for the 2021 Census questionnaire which will be included in the Census White Paper in 2018 before the questions are submitted to Parliament for approval in 2019.

Annex A: List of organisations that responded, by sector

This list includes organisations that responded to at least one consultation question, or discussed collection of data, on the 'Travel' topic. If multiple responses were received from an organisation the name only appears once.

Government department/public body

College of Arms
Department for Communities and Local Government (DCLG)
Department for Transport (DfT)
Health & Social Care Information Centre (HSCIC)
High Speed Two Limited
Higher Education Funding Council for England (HEFCE)
National Assembly for Wales
National Parks England
Office for National Statistics (ONS)
Sport England
Welsh Government

Local authority

Arun District Council
Association of North East Councils
Barnsley Metropolitan Borough Council
Bedford Borough Council
Birmingham City Council
Blaby District Council
Blackpool Council
Bournemouth Borough Council
Brent Council
Bristol City Council
Caerphilly County Borough Council
Carmarthenshire County Council
Cheshire East Council
Cheshire West and Chester Council
Chesterfield Borough Council
City of Bradford Metropolitan District Council
City of London Corporation
City of Wolverhampton Council
City of York Council
Colchester Borough Council
Cornwall Council
Cumbria County Council
Cyngor Sir Ceredigion/Ceredigion County Council
Derbyshire County Council
Devon County Council - Public Health

Durham County Council
East Riding of Yorkshire Council
East Sussex County Council
Essex County Council
Gateshead Council
Gedling Borough Council
Gloucestershire County Council
Greater London Authority
Gwynedd Council
Haringey Council
Hertfordshire County Council
Horsham District Council
Kent County Council
Knowsley Metropolitan Borough Council
Lancashire County Council
Lichfield District Council
London Borough of Bexley
London Borough of Camden
London Borough of Hackney
London Borough of Harrow
London Borough of Havering
London Borough of Hounslow
London Borough of Richmond upon Thames
Lower Broadheath Parish Council
Manchester City Council
Mole Valley District Council
Newcastle City Council
North York Moors National Park Authority
North Yorkshire County Council
Northampton Borough Council
Northumberland County Council
Oldham Council
Oxfordshire County Council
Powys County Council
Reigate & Banstead Borough Council
Royal Borough of Kensington and Chelsea
Royal Borough of Kingston upon Thames
Salford City Council
Sheffield City Council
Shropshire Council – Intelligence and Research Team
Snowdonia National Park
Somerset County Council
South Norfolk District Council
Southend-on-Sea Borough Council
St Helens Council

Staffordshire County Council - Connectivity Strategy
Surrey County Council
Swansea Council
Tameside Council
Tower Hamlets Council
Uttlesford District Council
Warrington Borough Council
Warwickshire Observatory
West Sussex County Council
Westminster City Council
Wookey Parish Council
Worcestershire County Council
Wychavon District Council
Wycombe District Council

Health organisation
Hywel Dda University Health Board
Public Health Wales National Health Service Trust

Housing
Cannon Consulting Engineers
Yarlington Housing Group

Academic/research
British Sociological Association
Centre for Longitudinal Study Information and User Support (CeLSIUS)
Economic History Society
Imperial College London – Small Area Health Statistics Unit
UK Data Service and Administrative Data Service
University of York - Centre for Housing Policy

Charity and voluntary
Cardiff Cycling Campaign
Chwarae Teg
CTC - the National Cycling Charity
Family and Childcare Trust
Friends, Families and Travellers
Irish in Britain
Lichfield Civic Society
National Association of British Arabs
Older Lesbian, Gay, Bisexual and Trans Association (OLGA)
Royal Town Planning Institute
Shelter
The Vegan Society

Commercial
CACI Ltd
David Simmonds Consultancy Ltd. (DSC)
Demographics User Group (DUG)
First UK Bus
IMA Transport Planning Ltd
Operational Research in Health Ltd (ORH Ltd)
Sainsbury's

Genealogist/family historian
Lyminge Family History Group
Tasmanian Family History Society Inc.

Other
Emergency Planning Society - West Midlands Branch
Health Statistics User Group (HSUG)
Market Research Society (MRS) and MRS Census & Geodemographics Group
New Economy
Royal Geographical Society with the Institute of British Geographers (IBG)
Summit Planning Ltd
Tees Valley Unlimited

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