Deep dive to the 'create a custom dataset' tool

Welcome to this ONS webinar.

Please note that cameras and microphones have been disabled

Please ask questions via Slido: Code #3502837

Office for **National Statistics**

Developer Hub

All API documentation is available on the ONS developer hub

https://developer.ons.gov.uk

Developer hub demo

Create your own Dataset API

All the functionality required to create a custom dataset is available through our population types api, so all URLs will begin:

https://api.beta.ons.gov.uk/v1/population-types

What Will I Need to Know?

To create a query, they all require the following to run:

- A population-type, the base population that the results are required to be taken from.
- An area-type - the geography level the results for should be retrieved for, e.g. lower tier local authority.
- Areas - this is optional, but if results are only required for a specific area within an area-type (e.g. only for Swansea and Cardiff lower tier local authorities). If not supplied then the default is to return all areas within an area-type.
- Variables - these are the topics to retrieve information for, e.g. occupation.

Starting to Build the Query

- To determine what population-types are available, access https://api.beta.ons.gov.uk/v1/population-types. This returns a list of population-types that are available to query.

- Only microdata types are available to run custom datasets on as the others are for static pre-defined queries.

- This endpoint is paginated, with a default limit of 20 results to be returned at a time. This can be amended via the limit and offset parameters.

- The name field in the response is important as this is what will be used in further queries.

- **Demo…**

What area-types are available?

- Once the population type has been determined, a list of available area-types within can be found by using the URL https//api.beta.ons.gov.uk/v1/population-types/{population-type-name}/area-types

- Again, this endpoint is paginated.

- One of these id's that are returned should be noted or stored, as the queries for results can only be run at one area-type at a time.

- **Demo…**

What areas are available?

- If filtering on specific areas is required for the custom dataset, the endpoint to retrieve what areas are available in an area-type is: https://api.beta.ons.gov.uk/v1/population-types/{population-type-name}/area-type/{area-type-id}/areas

- This endpoint is paginated.

- Some search criteria can also be applied to this endpoint by adding text in the "q" parameter - e.g. https://api.beta.ons.gov.uk/v1/population-types/UR_HH/area-types/wd/areas?q=wes which will return all electoral wards that include the text "wes". It is a fuzzy search.

- If any of these are to be applied as filters in the final query, the id's from this response should be noted or stored.

- **Demo…**

What Variables can I use?

- To see what variables are available in a population-type, the following URL pattern should be used - https://api.beta.ons.gov.uk/v1/population-types/{population-type-name}/dimensions

- Returns the base variables to work with, if a specific categorisation of these is required then these can be explored in the demo on the next slide.

- This endpoint is paginated.

- It is also searchable by adding text in the "q" parameter - this searches the label field that is returned in the response - e.g. https://api.beta.ons.gov.uk/v1/population-types/UR_HH/dimensions?q=dis. It is a fuzzy search.

- If any of these base variables are required in the final query - the id field returned in the response should be noted or stored.
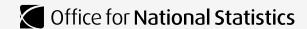
- **Demo…**

How to find categorisations

- If a specific level of detail is required for a variable, the following endpoint structure will return these:
https://api.beta.ons.gov.uk/v1/population-types/{population-type-name}/dimensions/{dimension-id}/categorisations
- In the final query, if one of these required then they are used in the same way as a variable.
- The response is paginated.
- The value that is returned in the id field should be noted or stored to be used in the final query.
- **Demo…**

How to retrieve the counts

- Once all the required information has been collated to run the query, the query structure is as follows: https://api.beta.ons.gov.uk/v1/population-types/{population-type-name}/census-observations?area-type={area-type-id},{area-id}&dimensions={variable-id},{variable-id}

- The area-type id that was stored should be used in the area-type parameter.

- Any required areas should be provided after this using commas, e.g. area-type=wd,E05000650,E05000651,E05000652

- Variables and/or categorisations should be provided in a comma separated list in the dimensions parameter - e.g. dimensions=accommodation_type,disability_3a.

- If the query triggers the disclosure rules, then 0 results will be returned. There is a limit on the number of variables that can be provided which varies depending on the level of geography applied. A message will be returned if this has been reached.

- **Demo…**

Questions?