**Outdoor spaces, culture, student satisfaction and research excellence at UK universities**

*Section 2: Data*

This report will focus on the 166 UK ‘mainstream’ higher education universities as described by the [UK Learning Providers data.ac.uk website](http://learning-provider.data.ac.uk/), which provides name and location data for universities. While alternative providers have emerged in the past 5 years, there is not sufficient historical contextual data to include them in this analysis – for instance, the last research excellence exercise ran in 2014. The UK Learning Providers dataset gives latitude and longitude coordinates for each university.

From this, [Foursquare](https://developer.foursquare.com/docs/api/venues/search) data will be obtained giving the count and types of facilities (‘venues’ in Foursquare language) within a five kilometre radius of the university – this radius was selected since it is the average human hourly walking speed and is felt to be a reasonable maximum distance that staff and students would travel to access a facility. Clearly longer distances can be travelled using public transport or car, but the assumption is that facilities which are within walking or cycling distance will be used regularly, and it is regular use which contributes to the ‘what it is like to be there’ aspects of this investigation. These Foursquare queries will focus on specific venue categories, including but not limited to:

**Arts & Entertainment**

Amphitheater

Aquarium

Art Gallery

Comedy Club

Concert Hall

Exhibit

Historic Site

Memorial Site

Movie Theater

Museum

Music Venue

Performing Arts Venue

Public Art

Stadium

Zoo

**Event**

Conference

Convention

Festival

Music Festival

Sporting Event

Street Fair

Trade Fair

**Outdoors & Recreation**

Athletics & Sports

Bathing Area

Beach

Bike Trail

Botanical Garden

Campground

Canal

Castle

Forest

Harbor / Marina

Lake

Mountain

National Park

Nature Preserve

Other Great Outdoors

Park

Pedestrian Plaza

Plaza

Pool

Rafting

Recreation Centre

River

Rock Climbing Spot

Scenic Lookout

Sculpture Garden

Ski Area

Skydiving Drop Zone

State/Provincial Park

Summer Camp

Trail

Waterfall

**Professional & Other Places**

Auditorium

Ballroom

Community Center

Cultural Center

Library

Observatory

Social Club

Spiritual Center

For each university therefore, *n* number of venue categories will be present, each with a count of venues of that category within 5 kilometres of the university.

Where available for a university, data from the Research Excellence Framework (REF) 2014 (<https://results.ref.ac.uk/(S(eeavwfcyupzawphdbegfxmge))/DownloadResults>) will be incorporated into the university data. This dataset gives an assessment of research quality for each ‘unit of assessment’ (i.e. subject) with staff size information which can be re-processed to form university-wide figures. Consideration will be given to the appropriate measure of quality to use (e.g. grade point average versus percentage rated 4\*).

Where available for a university, data from the National Student Survey 2018 (<https://www.officeforstudents.org.uk/advice-and-guidance/student-information-and-data/national-student-survey-nss/get-the-nss-data/>) will be incorporated into the university data. This dataset gives an assessment of student satisfaction for universities overall as well as by subject, across a range of 27 questions. Again, student population sizes are available should further processing being required.

Through, universities can be compared solely by the geographic and contextual factors, by the degree of research excellence, or by the levels of student satisfaction – and these factors can be brought together to explore any correlation between the various features present in the data.