

# AidData GeoQuery Request Documentation

## Report Info

Request Name	Request 03-29-23 16:25
Request Id	64249ec160459439682f4515
Email	ssaroka@ad.unc.edu
Generated on	2023-03-29 16:23:46 (EDT)
Download Link	<a href="https://geo.aiddata.org/query/#!/status/64249ec160459439682f4515">geo.aiddata.org/query/#!/status/64249ec160459439682f4515</a>

## Processing Timeline

submitted	2023-03-29 16:25:37 (EDT)
prepared	2023-03-29 16:23:45 (EDT)
processed	2023-03-29 16:23:45 (EDT)
completed	2023-03-29 16:23:46 (EDT)

## Citation

Please cite the following in any and all applications of the extracted datasets:

*Goodman, S., BenYishay, A., Lv, Z., & Runfola, D. (2019). GeoQuery: Integrating HPC systems and public web-based geospatial data tools. Computers & Geosciences, 122, 103-112.*

## Contents of Request Zip

- request documentation (this pdf document)
- a comma separated value (CSV) file containing your data
- JSON file containing your request parameters
- GeoQuery paper (pdf)

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**To get in touch, please contact us via [geo@aiddata.org](mailto:geo@aiddata.org).**

## Meta Information

### Boundary

Title	Lesotho ADM1 - GeoBoundaries v4
Name	Iso_adm1_gb_v4
Version	v4
Description	GeoBoundaries boundary file for ADM1 in Lesotho.
Details	(no additional details)
Bounding Box	[[[27.0114632, -28.570615], [27.0114632, -30.675575], [29.4557099, -30.675575], [29.4557099, -28.570615], [27.0114632, -28.570615]]]
Date Added	2021-09-08
Date Updated	2021-09-08
Source Name	geoBoundaries
Source Link	<a href="http://www.geoboundaries.org">http://www.geoboundaries.org</a>
Citation	Runfola, Daniel, Austin Anderson, Heather Baier, Matt Crittenden, Elizabeth Dowker, Sydney Fuhrig, Seth Goodman, Grace Grimsley, Rachel Layko, Graham Melville, Maddy Mulder, Rachel Oberman, Joshua Panganiban, Andrew Peck, Leigh Seitz, Sylvia Shea, Hannah Slevin, Rebecca Yougerman, Lauren Hobbs. "geoBoundaries: A global database of political administrative boundaries." Plos one 15, no. 4 (2020): e0231866.

### Selection 1 - Accessibility to Cities (2015)

Title	Accessibility to Cities (2015)
Name	accessibility_to_cities_2015_v1.0
Version	1
Column Names	Format: "accessibility_to_cities_2015_v1.0.<temporal>.<method>" for all combinations of <temporal> and <method> which can be found in the "Temporal Selection" and "Extract Types Selected" fields below (3 columns total)
Temporal Selection (0)	none
Extract Types Selected	mean (average travel time per unit of analysis), max (maximum travel time per unit of analysis), min (minimum travel time per unit of analysis)
Description	Estimated travel time (in minutes) to cities for the year 2015.
Details	Incorporates data from Open Street Map (OSM) data and the Google roads database. Not suited for time series analysis using earlier travel time estimates for the year 2000.
Bounding Box	[[[-180.0, 84.999942], [-180.0, -60.0], [179.999856000000002, -60.0], [179.999856000000002, 84.999942], [-180.0, 84.999942]]]
Date Added	2019-05-21
Date Updated	2019-05-21
Source Name	The Malaria Atlas Project
Source Link	<a href="https://map.ox.ac.uk/research-project/accessibility_to_cities/">https://map.ox.ac.uk/research-project/accessibility_to_cities/</a>
Citation	D.J. Weiss, A. Nelson, H.S. Gibson, W. Temperley, S. Peedell, A. Lieber, M. Hancher, E. Poyart, S. Belchior, N. Fullman, B. Mappin, U. Dalrymple, J. Rozier, T.C.D. Lucas, R.E. Howes, L.S. Tusting, S.Y. Kang, E. Cameron, D. Bisanzio, K.E. Battle, S. Bhatt, and P.W. Gething. A global map of travel time to cities to assess inequalities in accessibility in 2015. (2018). Nature. doi:10.1038/nature25181.
Variable Description	time in minutes
Resolution	0.0083333333333333
Factor	1.0

## Selection 2 - Travel time to major cities

Title	Travel time to major cities
Name	access_50k
Version	1
Column Names	Format: "access_50k.<temporal>.<method>" for all combinations of <temporal> and <method> which can be found in the "Temporal Selection" and "Extract Types Selected" fields below (3 columns total)
Temporal Selection (0)	none
Extract Types Selected	mean (average travel time per unit of analysis), max (maximum travel time per unit of analysis), min (minimum travel time per unit of analysis)
Description	Estimated travel time (in minutes) to the nearest city of 50,000 or more people in year 2000.
Details	(no additional details)
Bounding Box	[[[-180.0, 89.9999999928002], [-180.0, -90.0], [179.99999999856004, -90.0], [179.99999999856004, 89.9999999928002], [-180.0, 89.9999999928002]]]
Date Added	2016-11-10
Date Updated	2017-02-06
Source Name	Global Environment Monitoring Unit - Joint Research Centre of the European Commission
Source Link	<a href="http://forobs.jrc.ec.europa.eu/products/gam">http://forobs.jrc.ec.europa.eu/products/gam</a>
Citation	Nelson, A. (2008) Estimated travel time to the nearest city of 50,000 or more people in year 2000. Global Environment Monitoring Unit - Joint Research Centre of the European Commission, Ispra Italy. Available at <a href="http://forobs.jrc.ec.europa.eu/products/gam/">http://forobs.jrc.ec.europa.eu/products/gam/</a>
Variable Description	time in minutes
Resolution	0.008333333333333
Factor	1.0

## Interpreting CSV Column Names

Each CSV will contain a column labeled "asdf\_id" which has values for each feature that are unique (within that boundary dataset), one or more columns for your extract data, followed by the original source attributes for the boundary file (e.g., from GADM)

The standard format for extract data column names is a three part string delimited by periods (.)

**<dataset>.<filter>.<method>**

where

<dataset> is the name of the dataset which was extracted

<filter> describes how the dataset was filtered. This is usually a temporal value (e.g., YYYY format for year such as "1999", "none" for temporally invariant data, or a unique hash describing more complex filters, such as for aid datasets)

<method> is the extract method used to aggregate dataset values to boundary features (e.g., "mean", "sum")

### Notes - Aid data extracts

The <filter> component of aid data extracts is a unique hash that corresponds to the filter combination used to generate that particular aid data extract (e.g., donor, sector, year, status). For each aid data extract you request, you will see three columns in the CSV that have the same <dataset> and <filter> sections of the column name with the <methods> of the three being different.

These three <method> values are:

- "sum" is the total aid for each feature within the boundary based on the distribution of aid used when building the aid data
- "potential" is the maximum aid that could have been allocated to each feature regardless of the distribution of aid used
- "reliability" is a ratio of sum:potential representing a simplistic measure of how accurate the distribution and aggregation of aid was relative to the boundary features used during the extract process

### Notes - Categorical extracts

Data extracted using the categorical method will have multiple columns with the same <dataset> and <filter> where the <method> for each is "categorical\_<category>".

For a simple landcover dataset this might look like:

- landcover.2000.categorical\_water
- landcover.2000.categorical\_forest
- landcover.2000.categorical\_desert

## Usage Notes

- If you attempt to merge GeoQuery results with vector data (e.g., shapefiles) downloaded from GADM, the GADM data may not always contain a unique id field to merge on. In these cases, please feel free to contact us and we can provide you with a modified file that contains a unique field for merging ("asdf\_id" field, found in all result csvs).

## Notes About Aid Datasets

- When requesting aid data using a very specific filter (usually resulting in only a single project match), the location count shown in GeoQuery may be inaccurate. This can result in aid filters which appear valid while building your request, but result in no aid data in your results csv. This is due to a slight reduction in the accuracy of location counts for the web page in order to make the responses fast enough for user interaction.
- The year filter for aid data is based on project start and end dates (determined by earliest and latest transactions). Because projects are represented by year ranges, multiple aid data selections for individual years may contain duplicate aid. This will result in an inflated total if you sum the aid from each individual year (compared to a single selection for all years). Limited source information on individual or even yearly transactions for a project prevent us from offering more granular temporal aid values for projects.
- All aid data selections result in commitment values, regardless of whether you filter by commitment values or disbursement values (or both). This is due to the notably better project coverage of commitments vs disbursements (e.g., World Bank aid dataset has 99% commitment coverage vs ~75% for disbursements).

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## Acknowledgements

GeoQuery is an academic research project based out of AidData at William and Mary dedicated to enabling the use of spatial data in decision-making.

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